Paper TRADE JOURNAL

JUNE 8, 1950

WHO BUILT THE LARGEST MACHINE HOOD IN THE WORLD?

WHAT IS DURISOL?

ARE YOU RESPONSIBLE FOR THE TREND TOWARD SOCIALISM?

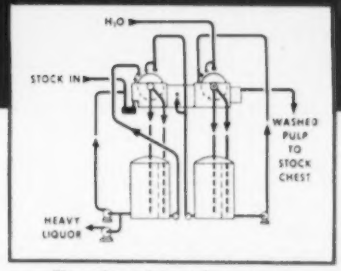
NOW YOU CAN WASH SULFITE PULP

WITH

LESS WASH WATER

CLEANER PULP

A CLOSED SYSTEM



Flow sheet for a 2-drum 4-stage sulfite pulp washing installation.

These advantages of the Swenson-Nyman pulp washing system, used so successfully for kraft and soda pulps, are now available to mills producing sulfite pulps. Well washed pulp can now be obtained with a reduction in the quantity of wash water by utilizing the principle of two-stage washing on a single drum. This results in higher total solids in the liquor to the alcohol plant, evaporator room, or other waste liquor process.

Bulletin E-108 describes Swenson Equipment for pulp mills —send, today, for a copy.

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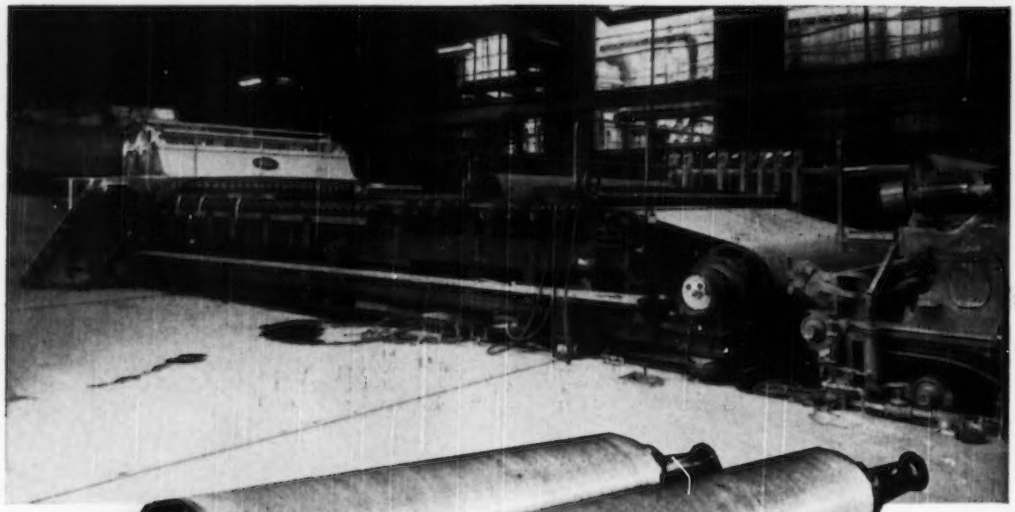


Downingtown suction couch roll installed at the mill of P. H. GLATFELTER CO., Spring Grove, Pa.

Two Downingtown suction couch rolls ready for shipment and installation. Double suction boxes of these rolls combine the virtues of a wide, low vacuum box and a narrow, high vacuum box in ONE roll.

5 BIG ADVANTAGES of Suction Couch Rolls with Double Suction Box

A Suction Couch Roll with a double suction box is a Downingtown standard—no special construction is needed to give you these 5 BIG advantages: (1) Maximum water removal at the couch assures SAFER RUNNING thru presses at high speed. (2) Large suction area absorbs carry-overs from the flat boxes and helps PREVENT them from causing BREAKS. (3) VACUUM is applied GRADUALLY.... In many mills, where high vacuum is used in a single box, it has been found that fibres are drawn into the wire, thus hindering easy removal of the sheet from the couch and sometimes even causing picking. (4) A double box in one roll means that free air is NOT HANDLED TWICE, as it is when a combination of suction couches is used. (5) Minimum vacuum equipment and MAXIMUM WATER REMOVAL. The double suction box consists of one wide, low or moderate vacuum box and one narrow, high vacuum box. (6) Due to Downingtown roll construction, which permits a rear suction, the two box connections are made at front and rear. This eliminates the constriction of air passages which is necessitated when both connections must be made at the front.... This development is just one of many perfected by Downingtown engineers over the years. Write for information about our other suction rolls, too, including single suction box, cantilever suction couch rolls and suction press, drum, extractor, and cylinder couch rolls.

DOWNINGTOWN MANUFACTURING COMPANY

DOWNINGTOWN, PA.

DESIGNERS AND BUILDERS OF PAPER MAKING MACHINERY SINCE 1880

No Dropping or Peaking of Grinding Power

ALLIS-CHALMERS SYNCHRONOUS MOTORS

New Coosa River Newsprint mill uses five 3,500 hp, 11,200 volt, 257 rpm Allis-Chalmers motors for steady grinding power.

FOR CONTINUOUS, high-speed grinding power, these motors were specified for five *Roberts* Grinders installed at Coosa River Newsprint mill, Childersburg, Alabama. High-speed operation with stone surface speeds up to 5000 feet per minute in this new 100,000 ton capacity mill is provided by this grinder-motor "team."

Why Specify *Allis-Chalmers* for Chipper, Grinder, Other Heavy-Duty Mill Drive Requirements:

Here are some of the reasons you should consider Allis-Chalmers synchronous motors: 1. Welded structural steel stator yoke provides strength against deformation. 2. Stator yoke punchings of high grade, non-aging steel minimize core losses. 3. Fan at each end forces air into core and out through yoke. 4. Ring-oiled bearings are dust-proof . . . special oil seals eliminate leakage from bearings or creeping of oil along motor shaft.

Specify "Matching" Controls!

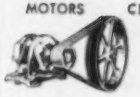
For *any* main or auxiliary drives or generator needs, you can get Allis-Chalmers motors or generators in all sizes ranging from 1 hp to the largest. Allis-Chalmers a-c and d-c motors—bracket-bearing, pedestal or engine-type — are designed to give you long life with proved low maintenance. And be sure to look into "matching" controls for your needs.

Contact your nearby A-C office for synchronous motor Bulletins 06B6033A and 05B6112A or general motor Bulletin 51B6052. A-2947

ALLIS-CHALMERS, 994A SO. 70 ST. MILWAUKEE, WIS.

MOTORS

CENTRIFUGAL PUMPS



TEXROPE V-BELT DRIVES

ROTARY KILNS

HI-DENSITY FEEDER

STREAMBARKER

AND OTHER EQUIPMENT FOR PAPER MAKING . . .

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ALLIS-CHALMERS

NO LETUP IN PRODUCTION

When you clean bearings and oil lines with

TEXACO URSA OIL X**

Oil lines clogged? Bearings fouled? You can easily clean them up without losing a minute's production. Let your Texaco Lubrication Engineer show you how a small percentage of *Texaco Ursa Oil X*** added to your present lubricant will quickly clear away accumulations of paper dust, carbon and water. When clean, drain and refill with *Texaco Ursa Oil X*** to assure continued cleanliness of system.

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For your enclosed gear drives, use *Texaco Meropa Lubricants*. They resist oxidation and thickening and do not foam . . . carry heavy loads easily . . . reduce wear and maintenance costs.

A Texaco Lubrication Engineer will gladly explain in detail how Texaco can help you improve efficiency and reduce costs. Just call the nearest of the more than 2,000 Texaco Wholesale Distributing Plants in the 48 States, or write The Texas Company, 135 East 42nd Street, New York 17, N. Y.

TEXACO

TEXACO Lubricants and Fuels

FOR THE PAPER INDUSTRY

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DATES TO REMEMBER

JUNE 8-10: American Institute of Chemical Engineers, Regional Meeting, Statler Hotel, Boston, Mass.

JUNE 8-10: American Pulp & Paper Mill Superintendents Assn., Edgewater Beach Hotel, Chicago, Ill.

JUNE 16-17: Paper & Twine Assn., Annual Meeting, French Lick Springs Hotel, French Lick Springs, Ind.

JUNE 23-24: Joint N. E.-Maine-N. H. TAPPI, Wentworth by the Sea, N. H.

JUNE 25-29: Forest Products Research Society, Annual Meeting, Portland, Ore.

JUNE 26-30: American Society for Testing Materials, 53rd Annual Meeting, Chalfonte-Haddon Hall, Atlantic City, N. J.

SEPTEMBER 5-9: Sixth National Chemical Exposition, Chicago Section, American Chemical Society, Chicago Coliseum, Chicago, Ill.

SEPTEMBER 11-23: 6th Educational Graphic Arts Exposition, International Amphitheatre, Chicago, Ill.

SEPTEMBER 14-17: American Pulp & Paper Mills Supts. Convention, Ottawa, Ont., Canada.

OCTOBER 2-5: Fifth Engineering Conference of the Pulp and Paper Industry, Netherland Plaza Hotel, Cincinnati, Ohio.

DECEMBER 3-6: American Institute of Chemical Engineers, Annual Meeting, Neal House, Columbus, Ohio.

THIS WEEK

A good use for wood waste! See "Durisol Light Weight Pre-Cast Concrete", by J. D. Dale.

An intelligent analysis of our present social economic conditions with suggestions for solving the problems is presented by W. N. Wheeler, Jr. in "Social Responsibility of Business".

Important suppliers of equipment for the paper industry: Ross Engineering—Builders of air systems.

NEXT WEEK

Complete Report of the Annual Meeting of the American Pulp & Paper Mill Superintendent's Assn., Edgewater Beach, Hotel Chicago, June 8-10.

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JUST PUSH THE BUTTON

to put these powerful forces to work in your company

Right now management has an unusual opportunity to gain employee-relations value from the high public interest these genii have created for U. S. Savings Bonds. During the Treasury Department's Independence Drive, May 15-July 4, every major advertising medium has been used to broaden the people's interest in Savings Bonds as a means of building financial independence. Now, more than ever, as a result of this all-out campaign, your employees will appreciate the convenience of being able to obtain Bonds "automatically" via the Payroll Savings Plan.

If your company doesn't yet have the Payroll Savings Plan, now's the most opportune time for you to install it!

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Employees who pile up money in Savings Bonds feel more secure . . . are actually better workers. Moreover, Bond sales build a backlog of future purchasing power—good "business insurance" for all of us in the years ahead.

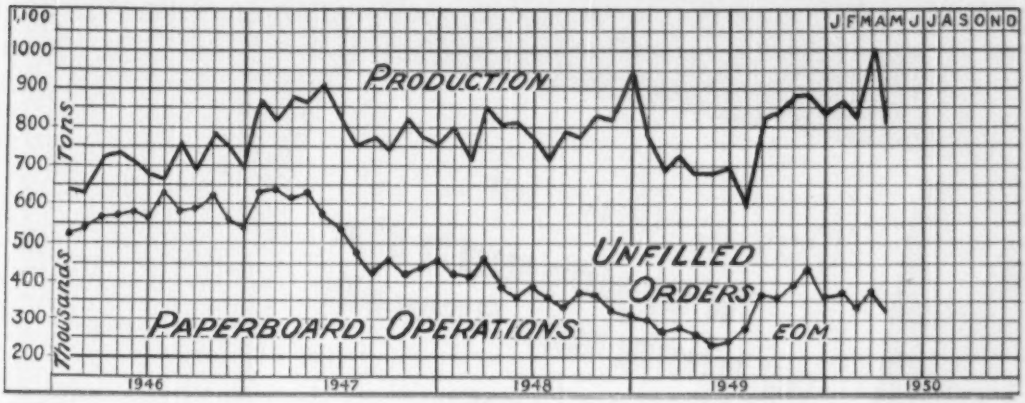
Payroll Savings is good for your employees, your business, and your country. "Push the button"—call in one of your top executives and appoint him Savings Bonds Officer. All the material and assistance he may need are available from your State Director, Savings Bonds Division, U. S. Treasury Department.

The Treasury Department acknowledges with appreciation the publication of this message by

PAPER TRADE JOURNAL

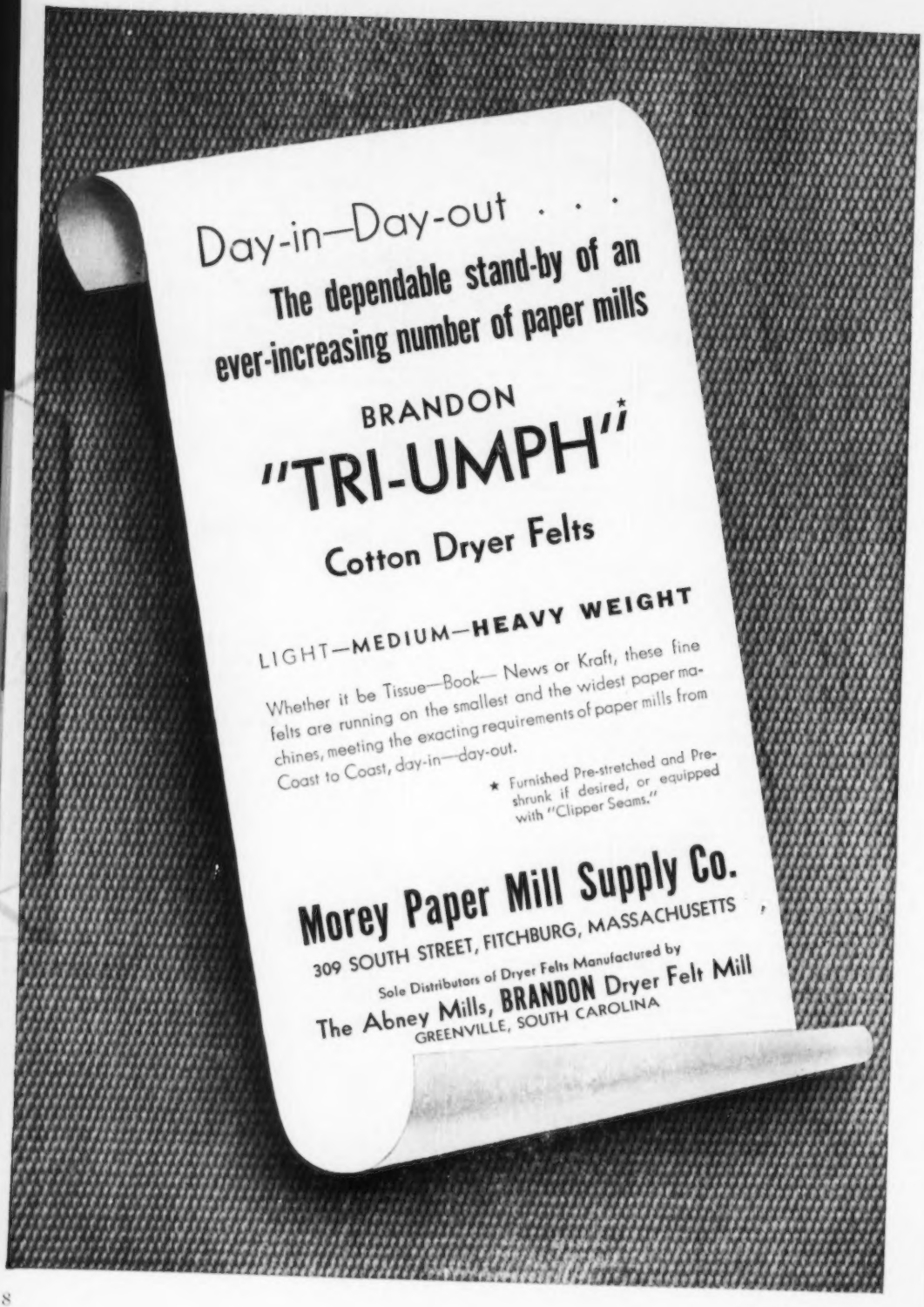
This is an official U. S. Treasury advertisement prepared under the auspices of the Treasury Department and The Advertising Council.

Weekly Brief of Important Figures



Source		WEEK ENDING May 27, '50	Apr. 29, '50	May 28, '49
APPA	Paper Production percent 6-day Capacity	103.1	101.5	83.4
	Unbl. Kraft Paper Production percent	99.2	101.3	66.4
NPA	Paperboard Operating Ratio percent inch hours	93.0	92.0	77.0
		Apr. 1950	**Mar. 1950‡**	**Apr. 1949**
APPA	Paper Production* (Except Newsprint and Building Papers) Tons	774,000	837,187	664,594
	New Orders Tons	779,500	854,627	634,122
	Unfilled Orders Tons	543,100	532,750	347,140
	Shipments Tons	768,000	840,905	664,179
		April 1950	**March 1950‡**	**April 1949**
NPA	Paperboard Production Tons	851,000	900,858	696,700
	New Orders Tons	843,000	951,914	688,000
	Unfilled Orders Tons	350,000	381,995	260,300
	Our Customers Activities Index[1]	**Latest Mo.°**	**Previous Mo.°**	**Year Ago°**
FRS	Manufactures Total Index	191	189	190
	Durable Mfg. Index	211	204	221
	Nondurable Mfg. Index	175	176	164
	Chemical Products Index	250	250	248
	Mfg. Food Products Index	148	145	145
	Printing and Publishing Index	169	167	156
ODC	Magazine Advg.-Printer's Ink Index	328	330	350
	Retail Sales Combined Adjusted Index	303.8	306.1	302.0
	Drug Index	220.2	220.7	225.2
	General Merchandise Group Index	291.3	297.0	289.9
	Grocery and Combination Index	377.3	368.3	367.1
	Prices Index			
BLS	Consumers Price Index[1]	167.0	166.5	169.5
	Wholesale all Commodities[2]	152.6	152.7	158.4
	Wholesale Foods[2]	155.5	156.7	162.9
	Commodities other than Farm Products and Foods[2]	146.0	145.9	150.7
	Wholesale Pulp and Paper[2]	155.5	155.6	167.2
	Purchasing Power of Dollar, Consumers Prices[1]	59.9	60.1	59.0
	General Activity Index			
FRS	Mfg. Production-Worker Payroll	330.1	329.2	332.8
	Unemployment Compensation Initial Claims (M)	1,294	1,240	1,458
	Miscellaneous Carloadings–Thousands of Cars	1,688	1,297	1,743
	Electric Output (Million KW hr.)	31,864	28,789	29,514
PTJ	Average 32 P & P Common Stocks as of May 29	$34.51	$33.08	$23.67
	Average Indicated Dividends Common Stocks as of May 29	$ 2.32	$ 2.39	$ 2.16

[1] 1935-39=100 Unadjusted Index
[2] 1926=100
* For details see APPA Monthly Statistical Summary—April 1950 Estimated Figures
° Latest Month Available on Request
‡ For Five Weeks


Day-in—Day-out . . .
The dependable stand-by of an ever-increasing number of paper mills
BRANDON
"TRI-UMPH"*
Cotton Dryer Felts
LIGHT—MEDIUM—HEAVY WEIGHT
Whether it be Tissue—Book— News or Kraft, these fine felts are running on the smallest and the widest paper machines, meeting the exacting requirements of paper mills from Coast to Coast, day-in—day-out.
* Furnished Pre-stretched and Pre-shrunk if desired, or equipped with "Clipper Seams."
Morey Paper Mill Supply Co.
309 SOUTH STREET, FITCHBURG, MASSACHUSETTS
Sole Distributors of Dryer Felts Manufactured by
The Abney Mills, BRANDON Dryer Felt Mill
GREENVILLE, SOUTH CAROLINA

Paper TRADE JOURNAL

TRENDS

Office of the PAPER TRADE JOURNAL,
Wednesday, June 7, 1950

Two Sides to the Fence

When general business swings along at its current upward rate, and the paper industry's production zooms with it to record proportions, the trend of thinking is likely to follow the line of least resistance. "Enjoy yourself while you're still in the pink" is a pleasing diet when there's more of the same coming up for tomorrow. Especially true if one can be callous to the lean times of the folks next door. But when neighbor on the other side of the fence sells what we produce, his problems have such a bearing on our immediate future that our interest becomes self-preservation.

Buyers' Market Now Consumer's Market

Competition has become so keen among merchants, retailers and distributors that price-breaking is rampant. An abundant supply of general merchandise, "too many distributors," and wanton concern for the economy's future has developed in the national economy what has been described as a bargain sale for the ultimate consumer, or "A Consumer's Market." The "beginning of the end of fair trading came when competition hit New York retailers," says one market bulletin. "Manufacturers have brought suits against New York stores for price-breaking . . . stores say they broke them after discount houses and other dealers broke first . . . manufacturers must sue retailers for cutting prices; but manufacturers want more outlets, not fewer." An honest appraisal of such keen competition must tell the onlooker that *demand is not of boom-size dimensions in this market*, the consumer is buying where he can get the most for the "leastest."

A Sensitive Spot to Merchants

Price-cutting is a sore and sensitive spot in paper distribution. The market has become so competitive that the merchandise on the other side of our producing fence must spread his butter to the margarine point just to keep going. Ever-narrowing profits are weighed against staggering increases in warehousing costs, transportation and wages, while a threat of pension demands looms on the horizon.

Without assistance from the mills to eliminate this unhealthy price-cutting, "old-line" warehousing distributors see their future in jeopardy. Mill agents, free of warehousing costs, know an easier existence. But there are brokers and still other brokers with "other fleas to bite them."

In view of F.T.C. claims about fair trade restraints, merchants are unwilling to air their difficulties publicly. The subject is dynamite, however. Are there too many distributors, it has been asked? Are there too many willing and anxious to sell volume and forget the needful profit factor? The right kind of competition is healthy and desirable, it is agreed; but sharp practices and price-breaking—whether at merchant or mill distribution—are ruinous to the merchant and to the mill.

Trade Practices Rules

As a step in the right direction, merchants are understood to be generally giving wholehearted approval to the Trade Practice Rules for the Fine and Wrapping Paper Distributing Industry as promulgated by the Federal Trade Commission on May 16, 1950, to become operative 30 days from date. (Full text of rules on pages 13, 14 and 16 of this issue.)

General Business Conditions

Industrial and construction activity showed further gains in April and May. Prices of many industrial materials and of livestocks and other farm products have advanced since mid-April. Sales of durable consumer goods have continued at exceptionally high levels. Common stock prices have risen further. (Board of Governors, Federal Reserve System.)

The Board's index of industrial production rose 2 points further in April to 189 percent of the 1935-39 average, and in May apparently showed a similar increase. Manufactures of durables rose to 221 in April, 9 points over the March 1950 figure also the April 1949 figure of 212. Non-durables dropped one point in April from the March 180 figure, but were 17 points over April 1949's figure.

Steel output was at record levels in April and May, and during the week ending May 28 was scheduled at 102 percent of present rated capacity. Automobile assemblies rose 10 percent in April and in mid-May, following settlement of the Chrysler labor dispute, advanced about 20 percent further to a new peak rate. The FRS Board's machinery index advanced substantially further in April to 250 percent of the 1935-39 average, the highest since early in 1949, reflecting the recent general strengthening of demand for producers equipment, as well as the sustained high demand for household appliances.

Demand for Steel and Products

Demand for steel and steel products taxes the industry's capacity, although pipelines are filling. Inventory buying could be heavy during the early autumn because of the re-opening clause in the current two-year labor contracts between steel producers and United Steel Workers. The union may call for a revision of wage and pension arrangements around November 1. (Chemical Bank & Trust Co.'s *Trends.*)

The Board's seasonally adjusted index of department store stores in April was 292 percent of the 1935-39 average, as compared with 293 in April 1949. Sales in the first three weeks of May continued close to year ago levels, despite lower apparel sales.

Retail sales of radios, television sets and other durable housefurnishings continued considerably above a year ago. Sales of automobile dealers were at record levels in May. *Volume* of instalment credit has continued to expand.

Consumer and real estate loans continued to increase at banks and in leading cities during April and the first half of May. Business loans declined further, but the reduction appeared less than might be seasonally expected.

Commodity Prices

The most significant new development is in commodity prices, reports National City Bank's *Monthly Letter.* Specific reasons for the advances vary, but there is one general reason: pressure of demand. Since mid-April, copper has advanced 2c, zinc 2½c, lead 1½, aluminum ½c, nickel 8c, and tin 1¼c. Steel scrap has risen by about $6 a ton. A number of chemicals have been marked up and rubber has advanced 10c, wool 10c, and hides 1c. Building materials prices also are rising. Currently they average 5 percent above last Fall's low point, according to the BLS index.

Pulp Prices Strengthen

Early indications are that third-quarter wood pulp prices will move upwards $7/$10 a ton. Noteworthy is an announcement that Canadian unbleached sulfite will be pegged at $107 delivered; whereas Canadian prices are not usually decided until U. S. prices are known just before the new quarter opens. Canadian bleached sulfite has been quoted at $125, a rise of $7. Scandinavian prices probably will move in about the same range, it is believed.

In view of the tight supply condition and traditional market patterns, it is held as likely that some Swedish grades may move still higher. Bleached soda, domestic, also will rise $7 to $122, July 1. Canadian unbleached kraft of a major producer will, however, be unchanged at $82.50 delivered. No U. S. mills had made announcements at press time.

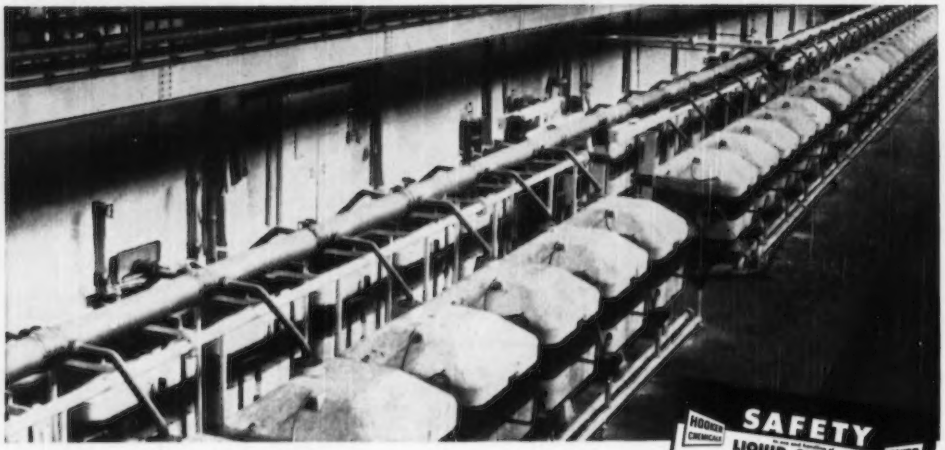
Paperboard Production (Tons)*

	May 27 1950	May 20 1950	May 28 1949
Production	209,330	209,334	157,613
New Orders	187,300	193,546	149,534
Unfilled Orders	333,486	338,627	238,745

Source: NPA.

Careful Buyers of Caustic Soda and Chlorine

SPECIFY HOOKER



Users of Chlorine will want a copy of the Hooker Wall Chart, "Recommendations for Safety in the Use and Handling of Chlorine in Cylinders and Ton Containers." Printed in large readable type on linen backed paper, it is ideal for mounting wherever you use or store chlorine.

Two New Plants Have Specified HOOKER

H. R. MacMillan Export Company, Ltd., Pulp Division has specified Hooker Chlorine and Caustic Soda for its new bleached sulfate pulp mill at Nanaimo, Vancouver Island, B. C. The Columbia Cellulose Company, Ltd., has also specified Hooker to supply its requirements of Caustic Soda and Chlorine for its new dissolving pulp mill at Watson Island, B. C.

In the Hooker Electrochemical Company you too may have a dependable source for caustic soda and chlorine of high quality and constant uniformity. This is testified by the increasing number of users who year after year continue to secure their requirements from Hooker.

They have learned through experience that they can rely on these products of the famous Hooker "S" Cell. Produced under watchful control, each shipment is of the same uniform high quality. Through careful inspection and care of containers it reaches you in the same condition it leaves our plants.

For uniform processing from uniform Liquid Chlorine and Caustic Soda, specify Hooker.

From the Salt of the Earth

HOOKER ELECTROCHEMICAL COMPANY

HOOKER CHEMICALS ®

10-817

6 UNION STREET, NIAGARA FALLS, N. Y.

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SODIUM SULFIDE • SODIUM SULFHYDRATE • SODIUM BENZOATE • CAUSTIC SODA • MURIATIC ACID • PARADICHLOROBENZENE • CHLORINE

News of the Week

Paper TRADE JOURNAL

Hardy S. Ferguson Joins H. K. Ferguson

NEW YORK — Hardy S. Ferguson, a leading pulp and paper mill engineer for many years, has joined the Pulp and Paper Engineering Division of The H. K. Ferguson Co., industrial engineers and builders, as a consultant, it was announced June 8.

Mr. Ferguson recently terminated his own engineering concern which had gained an international reputation as engineers and designers of pulp and paper facilities. Several of the principal engineers in his organization have also joined The H. K. Ferguson Co.

Operating as Hardy S. Ferguson, engineers, Mr. Ferguson directed design for some of the largest pulp and paper mills in the United States and Canada, as well as in several foreign countries. Among his clients, for whom plants were designed and constructed, are Great Northern Paper Co., Sound View Pulp Co., St. Regis Paper Co., Farnsworth & Whitney Co. and Crossett Lumber Co.

In 1949, Mr. Ferguson was awarded the TAPPI Gold Medal by the Technical Association of the Pulp and Paper Industry in recognition of his contributions to the industry. He was the seventeenth recipient of the award.

The H. K. Ferguson Co. has also been active in the paper industry for many years. The firm is presently engaged in expansion programs for Gulf States Paper Corp., Tuscaloosa, Ala., and Calcasieu Paper Co., Elizabeth, La.

Seek Information on Newsprint Needs

NEW YORK — Ebasco Services, Inc., engineering consultants for the paper mill project in Western Colorado, sponsored by Columbine Development Co. of which Preston Walker, general manager of the Grand Junction (Colo.) *Sentinel*, is president, will make a survey of newspapers in the area to determine whether the project will make newsprint and the amount of tonnage required. A questionnaire will be sent to newspaper publishers in Colorado, Utah, Wyoming, Southern Idaho, Northern New Mexico, Kansas, Nebraska and possibly Eastern Missouri. This questionnaire will ask the amount of newsprint consumed, size of rolls and whether the publisher would be interested in buying newsprint from the mill provided quality and price were equal or better than now obtained.

The projected tonnage of the mill is 160 tons per day of ground wood pulp for newsprint. Timber surveys have indicated that a mill of 400 to 500 tons per day could be carried on for at least 90 years. It is hoped that construction of the mill can be started early in 1951 with newsprint production by late 1952.

HUGH P. BAKER

Hugh P. Baker, president emeritus of the University of Massachusetts, died at the Florida Sanitarium on May 24.

Dr. Baker was active in the field service U. S. Forest Service with Royal S. Kellogg. He served as professor of Forestry at Pennsylvania State College, Iowa State College and the New York State College at Syracuse.

In 1912 he became the first dean of N. Y. S. College of Forestry. During his 8 year term he built the college from 52 students to 268, supervised the building of the Campus and established the Ranger School. His policies charted the character for the college as it is today. Through his close association with George Sisson, he became executive secretary of APPA in 1920 serving a term of 8 years, bringing into association activities such men as Warren Bullock and Oliver Porter.

Leaving the association, he worked with the U. S. Chamber of Commerce, following a return to the College of Forestry for a short period he was called to the presidency of Massachusetts State College of Agriculture now known as the University of Massachusetts. The N. Y. S. College of Forestry history says of him, "Dr. Baker was a man of wide vision, outstanding courage in developing new ideas in forestry education, abnormal energy and initiative, a hard driver of his faculty, and possessed of what amounted to a veritable genius along publicity and promotion lines. Within a few years he made the college known not only from one end of the State to the other but also taking rank among the educational institutions of the country for its unique ideas and outstanding work in forestry education and generally noted for the ability and initiative of its graduates.

"Dr. Baker's outstanding contribution to the college aside from material expansion was the adoption of the policy of dividing the field of forestry education into distinct and specialized lines rather than adhering to the fields of silvicuture and management which up to that time had characterized all schools and departments of forestry in this country."

Pulp Consumers Oppose Lower Tariff

WASHINGTON, D. C.—Appearing before the Committee for Reciprocity Information on June 5 in opposition to further tariff reductions on paper, representatives of the Association of Pulp Consumers stressed the importance of an adequate supply of market wood pulp to the several hundred domestic paper mills lacking integrated pulp facilities. William Beckett, president, Robert H. Evans, vice-president, and Karl Clauson, secretary of the association testified that lower tariffs on paper would encourage Canada and Scandinavia to export paper to the United States in place of an equivalent amount of wood pulp. Consequently, domestic non-integrated mills would be squeezed between cheap imported paper on the one hand and scarce raw materials on the other. Profit margins of non-integrated mills are already at such a low level that they cannot reduce selling prices or absorb cost increases.

KARL CLAUSEN

It was further pointed out that many small communities are heavily dependent upon non-integrated mills and that these mills are essential to the national economy. The Committee for Reciprocity Information was urged to postpone any further action to lower paper tariffs until it was possible to judge more accurately the effects of the reductions negotiated at Annecy and the results of the currency devaluations.

Letter To Editor

May 12, 1950

Dear Mr. Perry:

I want to congratulate you on your article in the April 27th issue of the *Paper Trade Journal* entitled "YOUR JOB — YOUR FUTURE — YOUR SECURITY."

Union Bag has been very aware of this situation — especially in the past year. We have taken this matter up with our State Department. However, we thought we were fighting a one-man battle, until we saw your excellent article. It seems to me that we should make the Paper Industry more aware of the actual facts, and get Washington to see that we are not a bunch of isolationists fighting merely to export and to prevent all imports. Your sentence: "We negotiate to give, and receive so little in return" is particularly striking in this connection.

Union Bag is trying to do something about this situation, and I want to enlist your further support for a campaign to rectify some of the conditions both in the United States and Canada.

If you find this of interest to you, I would appreciate hearing from you as soon as possible.

JOHN P. SCHWEDE
Director of Exports
Union Bag & Paper Corp.
New York 7, N.Y.

Canadian Cellucotton Expands

TORONTO, Ont. — Canadian Cellucotton Products Co., Ltd., plans to start immediately on an industrial expansion program involving the expenditure of $1,500,000 at Niagara Falls, Ont.

Work is to start at once on a four-story building which will double the size of existing buildings. It is expected that employment will be increased by 20 percent to 25 percent over the present working force of about 400 at Niagara Falls.

The new construction is expected to be completed by February 1, 1951, to coordinate with a paralleling $3 million mill program already announced for Kapuskasing, Ont., by Kimberly-Clark of Canada, Ltd.

Fire Razes La Rochette Mill

NANCY, France—Fire destroyed the big La Rochette paper and cardboard mill near Nancy on June 1 equipped two days previously with Marshall Plan funds. Damage was estimated at about $6 million. The mill was reported the most up-to-date paper and cardboard factory in France.

ALVIN BARDEN

Wins Trees For Tomorrow Contest

MERRILL, Wis.—Alvin Barden, a 16-year-old Tomahawk High School student, was named winner of the annual $1,200 Trees for Tomorrow forestry scholarship this week. Alvin lives in the town of Cassian, 18 miles northwest of Tomahawk. He completed the regular four year course in three years.

High scholastic standing, activities in the field of conservation on his own woodlot and on the Tomahawk school forest, plus perseverance in his efforts to secure an education were factors that brought Alvin the $1,200 scholarship.

He may attend any one of the 27 accredited forestry schools in the country and specialize in any particular field of forestry he feels best qualified to enter.

Brown Co. Trades Trees for Pulpwood

BERLIN, N. H.—The Brown Co. announced on May 24 that in the interest of forest conservation it will trade trees for pulpwood.

Laurence F. Whittemore, president, said pulpwood producers will receive free tree planting stock on the basis of a tree for each tree the company purchases in the form of pulp.

"In other words," he explained, "a producer supplying us with 500 cords of pulpwood will be entitled to 4,000 free trees."

Moreover, Whittemore said, Brown buyers will assist woodland owners in marking timber for cutting and in advising on tree planting to insure maximum productivity.

Stillwater To Be Sold At Auction

Complete plant of Stillwater Tissue Mills, Inc., Stillwater, N. Y., including all buildings and equipment, will be sold as a unit at public sale on June 17 at 2 p.m. at the mill.

Letter to Editor

May 1, 1950

Dear Mr. Perry:

We have just finished reading your editorial, "Your Job—Your Future—Your Security."

Our product here goes 100 percent into shoes as a substitute for leather and the shoe industry is now being plagued with the importation of shoes from Czechoslovakia. These shoes are being imported at a price so low that American shoe concerns cannot possibly compete — prices lower than the cost of material that goes into American made shoes. Remember that these are coming from behind the "Iron Curtain."

Before World War II the importing of Czech shoes and fibre board put the shoe industry and our industry in bad shape. True, the percentage of shoes imported was not large, although large enough, but it served to force the price of all shoes made in the U.S.A. down to unhealthy levels. The importing of 10 percent of any product will bring about the same result.

What can we do? We are calling this to the attention of our Congressmen, Senators, etc., with the hope that they will take steps to prevent these imports. We ask that you send us several copies of your editorial so that we may forward them with our letters.

We thank you and commend you for your work, and we are,

M. J. GUILD
The Milton Leather Board Co.
Milton, New Hampshire

Lee Paper $1 Million Expansion

VICKSBURG, Mich.—Construction of $1 million addition to the Lee Paper Mill is scheduled to start this month. It's the biggest expansion since the mill was built in 1904 according to a report.

Newsprint Mill for Arkansas

NEW YORK — Merritt, Chapman & Scott Corp., engineers, has completed a survey for the White Star Paper Co., which has been organized to promote the construction of a newsprint mill near Prescott, Ark., according to reports.

Principals of the White Star Paper Co. are officers of Dierks Lumber Co., and Ozan-Graysonia Lumber Co. of Kansas City, Mo., and Gurdon Lumber Co., all with large holdings of pine timber lands in Arkansas. Merritt, Chapman & Scott Corp. was the construction contractor for the Southland Paper Mills, Inc., Lufkin, Texas.

It is reported that the mill will have one machine with a rated capacity of 50,000 tons per annum.

Trade Practice Rules for the Fine and Wrapping Paper Distributing Industry

Statement by the Commission:

Trade practice rules for the Fine and Wrapping Paper Distributing Industry are promulgated by the Federal Trade Commission as hereinafter set forth.

The industry is composed of the persons, firms, corporations, or organizations engaged in wholesaling, jobbing, or distributing a variety of paper products coming within the group known as fine and wrapping paper. Included therein are writing papers, envelopes, paperboard, and many other paper items. Aggregate annual sales of these products exceed a billion dollars. Customers of industry members include book and magazine printers, stationery printers and stationers, wholesale establishments, retail stores, shippers, paper-box manufacturers, etc.

Trade practice conference proceedings in this matter were instituted upon application from the industry. A conference for all industry members was held in New York City at which proposals for rules were received and considered. Subsequently, a draft of proposed rules in appropriate form was made available by the Commission and public notice given whereby all interested and affected parties or groups were afforded opportunity to present their views, suggestions, or objections, and to be heard. Pursuant to the official notice, public hearings was held in Washington, D. C., and all matters there presented, or otherwise submitted in the proceeding, were duly considered.

Upon consideration of the entire proceeding, the Commission approved and received, respectively, the Group I and Group II rules set out below, which become operative thirty (30) days from date of promulgation.

Such rules are directed to the objective of aiding in the prevention of unfair trade practices and maintaining free and fair competition in the conduct of the business. Issuance of the rules and the proceedings in respect thereto are without prejudice to any other proceeding before the Commission.

The Rules

These rules promulgated by the Commission are designed to foster and promote the maintenance of fair competitive conditions in the interest of protecting industry, trade, and the public. It is to this end, and to the exclusion of any act or practice which suppresses competition, restrains trade, fixes or controls price through combination or agreement, or which otherwise injures, destroys, or prevents competition, that the rules are to be applied.

Group I

The unfair trade practices embraced in the Group I rules herein are considered to be unfair methods of competition, unfair or deceptive acts or practices, or other illegal practices, prohibited under laws administered by the Federal Trade Commission; and appropriate proceedings in the public interest will be taken by the Commission to prevent the use, by any person, partnership, corporation, or other organization subject to its jurisdiction, of such unlawful practices in commerce.

Rule 1—Misrepresentation in General.

It is an unfair trade practice to use, or cause or promote the use of any trade promotion literature, advertising matter, mark, brand, label, designation, or other representation, however disseminated or published, which has the capacity and tendency or effect of misleading or deceiving purchasers or prospective purchasers with respect to the grade, quality, quantity, price, value, origin, size, weight, strength, thickness, use, preparation, composition or "furnish," packing, count, finish, manufacture or distribution of any product of the industry, or in any other material respect.

(Note: The word "furnish" as used in this rule means the composite ingredients fed into a paper-making machine to produce a particular kind of paper.)

Rule 2—Misrepresentation as to the Character of Business.

It is an unfair trade practice for any member of the industry, in the course of or in connection with the distribution or sale of industry products, to represent, directly or indirectly, that he is a manufacturer, wholesaler, distributor, or retailer of industry products when such is not the fact, or in any other manner to misrepresent the character, extent, or type of his business.

Rule 3—Deception as to Available Supply of Advertised Merchandise.

The advertising or offering for sale of small and inadequate supplies (whether as closeouts or otherwise) of well-known brands of products at greatly reduced or bargain prices without disclosure of the quantity or of the inadequacy of the supply available at such prices, with the capacity and tendency or effect of thereby misleading or deceiving the purchasing or consuming public, is an unfair trade practice.

Rule 4—False Invoicing.

Withholding from or inserting in an invoice, billing, or statement any material information by reason of which omission or insertion a false record is made, wholly or in part, of the transaction which such invoice, billing, or statement purports to represent, with the purpose and effect of thereby misleading or deceiving purchasers, prospective purchasers, or the consuming public, is an unfair trade practice.

Rule 5—False and Misleading Price Quotation, Etc.

The publishing or circulating by any member of the industry of false or misleading price quotations, price lists, or terms or conditions of sale, with the capacity and tendency or effect of thereby misleading or deceiving purchasers or prospective purchasers, is an unfair trade practice.

Rule 6—Misrepresenting Products as Conforming to Standard.

Representing, through advertisement or otherwise, that any products of the industry conform to a standard recognized in or applicable to the industry when such is not the fact, with the capacity and tendency or effect of misleading or deceiving the purchasing or consuming public, is an unfair trade practice.

Rule 7—Imitation or Simulation of Trade-Marks, Trade Names, etc.

The imitation or simulation of the trade-marks, trade names, brands or labels of competitors, with the capacity and tendency or effect of misleading or deceiving the purchasing or consuming public, is an unfair trade practice.

Rule 8—Deceptive Use of Trade or Corporate Names, Trade-Marks, etc.

The use of any trade name, corporate name, trade-mark, or other trade

As Promulgated May 16, 1950.
Federal Trade Commission, Washington, D. C.

designation which has the capacity and tendency or effect of misleading or deceiving the purchasing or consuming public as to the name, nature, or origin of any product of the industry or of any material used therein, or which is false or misleading in any other respect, is an unfair trade practice.

Rule 9—Substitution of Products.

The practice of shipping or delivering products which do not conform to samples submitted, to specifications upon which the sale is consummated, or to representations made prior to securing the order, without the consent of the purchasers to such substitution and with the capacity and tendency or effect of misleading or deceiving the purchasing or consuming public, is an unfair trade practice.

(Note: Nothing in this rule shall be construed as preventing the application of such tolerances as are agreed upon between buyer and seller or are otherwise deemed reasonable and proper and where no misrepresentation or deception of the purchasing public is practiced or promoted in relation to the product or its deviation from sample or specifications.)

Rule 10—Enticing Away Employees of Competitors.

It is an unfair trade practice for any member of the industry wilfully to entice away employees of competitors with the intent and effect of thereby unduly hampering or injuring competitors in their business and destroying or substantially lessening competition: *Provided,* that nothing in this rule shall be construed as prohibiting employees or agents from seeking or obtaining more favorable employment.

Rule 11—Procurement of Competitors' Confidential Information by Unfair Means and Wrongful Use Thereof.

It is an unfair trade practice for any member of the industry to obtain information concerning the business of a competitor by bribery of any employee or agent of such competitor, by false or misleading statements or representations, by the impersonation of one in authority, or by any other unfair means, and to use the information so obtained in such manner as to injure said competitor in his business or to suppress competition or unreasonably restrain trade.

Rule 12—Defamation of Competitors or Disparagement of their Products.

The defamation of competitors by falsely imputing to them dishonorable conduct, inability to perform contracts, questionable credit standing, or by other false representations, or the false disparagement of the products of competitors in any respect, or of their business methods, selling prices, values, credit terms, policies, or services, is an unfair trade practice.

Rule 13—Selling Below Cost.

The practice of selling industry products below the seller's cost, when pursued with wrongful intent of thereby injuring a competitor and where the effect of such practice is to unreasonably restrain trade, tend to create a monopoly, or substantially lessen competition, is an unfair trade practice.

This rule is not to be construed as prohibiting all sales below cost, but only such selling below the seller's cost as is resorted to and pursued as a monopolistic practice with the wrongful intent referred to and coupled with the effect of unreasonably restraining trade, tending to create a monopoly, or substantially lessening competition.

The costs referred to in the rule are actual costs of the respective seller and not some other figure or average costs in the industry determined by an industry cost survey or otherwise.

Rule 14—Combination or Coercion to Fix Prices, Surpress Competition, or Restrain Trade.

It is an unfair trade practice for a member of the industry, or any other person:

(a) To use, directly or indirectly, any form of threat, intimidation, or coercion against any member of the industry or other person to unlawfully fix, maintain, or enhance prices, suppress competition, or restrain trade; or

(b) To enter into or take part in, directly or indirectly, any agreement, understanding, combination, conspiracy, or concerted action with one or more members of the industry, or with one or more other persons, to unlawfully fix, maintain, or enhance prices, suppress competition, or restrain trade.

Rule 15—Prohibited Discrimination.

I. *Prohibited Discriminatory Prices, or Rebates, Refunds, Discounts, Credits, Etc., Which Effect Unlawful Price Discrimination.* In the marketing in commerce[1] of products of the industry of like grade and quality for use, consumption, or resale within the jurisdiction of the United States, and subject to paragraphs (1), (2), and (3) below, it is an unfair trade practice for any member of the industry engaged therein to discriminate in price between different purchasers where the effect thereof may be substantially to lessen competition or tend to create a monopoly in any line of commerce, or to injure, destroy, or prevent competition with such industry member or with any person who knowingly receives the benefit of such discrimination or with their customers.

I-A. The inhibitions against such discrimination in price shall be applicable irrespective of whether the discrimination in the price itself is effected in the form, or through the means, of rebates, refunds, discounts, credits, allowances, or other form of price differential.

(1) However, nothing herein contained shall prevent differentials which make only due allowance for differences in the cost of manufacture, sale, or delivery resulting from the differing methods or quantities in which the products are sold or delivered to said purchasers.

(2) Nor shall anything herein contained prevent persons engaged in selling products in commerce[1] from selecting their own customers in bona fide transactions and not in restraint of trade.

(3) Nor shall anything herein contained prevent price changes from time to time where made in response to changing conditions affecting the market for or the marketability of the goods concerned, such as but not limited to actual or imminent deterioration of perishable goods, obsolescence of seasonal goods, distress sales under court process, or sales in good faith in discontinuance of business in the goods concerned.

II. *Prohibited Brokerage or Commissions.* In the selling of industry products in commerce,[1] it is an unfair trade practice for any member of the industry engaged therein to pay or grant, or to receive or accept, any commission, brokerage, or other compensation, or any allowance or discount in lieu thereof, except for services rendered in connection with the sale or purchase of such products, either to the other party to such transaction or to an agent, representative, or other intermediary therein, where such intermediary is acting in fact for or in behalf, or is subject to the direct or indirect control, of any party to such transaction other than the person by whom such compensation is so granted or paid.

III. *Prohibited Advertising or Promotional Allowances, Etc.* In the selling of industry products in commerce,[2] by any member of the industry, and in the course thereof, it is an unfair trade practice for such member to pay or contract for the payment of anything of value to or for the benefit of his customer as compensation or in consideration for certain services or facilities furnished by or through such customer, unless such payment or consideration is available on proportionally equal terms to all other customers of such member competing in the distribution of such products.

(a) As used in the foregoing paragraph III, the certain services or facilities referred to are such as are furnished by or through the customer in connection with the processing, handling, sale, or offering for sale, of such industry member's products.

IV. *Prohibited Discrimination in Services or Facilities.* In the sale of industry products bought for resale,

[1] As used throughout Rule 15, the word "commerce" means "trade or commerce among the several States and with foreign nations, or between the District of Columbia or any Territory of the United States and any State, Territory, or foreign nation, or between any insular possessions or other places under the jurisdiction of the United States, or between any such possession or place and any State or Territory of the United States or the District of Columbia or any foreign nation, or within the District of Columbia or any Territory or any insular possession or other place under the jurisdiction of the United States."

New Answers . . . to Present pH Problems

New Immersion Electrode Assembly uses no sampling line.

New lightweight Flow Electrode Assembly for sampling line measurements.

Two families of controllers for pH applications.

"Controllability Analysis" form for engineering data.

With brand-new developments in pH equipment, plus 26 years experience in pH instrumentation, L&N now has new answers to several important types of industrial pH problems. Furthermore, a unique, time-saving "Controllability Analysis" service quickly and accurately points to the control system which will solve the specific problem.

New developments in equipment cover both the electrodes which sense changes in the pH, and the housings or assemblies which hold the electrodes.

Entirely waterproof construction is featured in the new electrodes. It makes them ideal for humid or wet locations, since they are fully immune to electrical leakage as well as to penetration by process liquids.

One of the new assemblies is an immersion-type unit, to operate in tanks, reactors, etc.; it can even be totally submerged if necessary. It also operates in many places which formerly required a flow-type unit; in such cases it eliminates both the installation and the maintenance of sampling line, pump and accessories. It is made of light, corrosion-resistant plastic.

The other new electrode assembly features convenience and stability where a flow-type unit must be used. Made of plastic, it is light, small, easy to install and thoroughly dependable. Where plastic might not suit, we of course continue to supply assemblies of cast iron and/or Pyrex brand glass.

Two families of recording and controlling instruments are now available: the familiar, accurate and reliable Micromax and the newer but equally dependable Speedomax continuous-balance instrument. Both are available with either electrical or air actuated control systems.

For application engineering simply fill in one of our "Controllability Analysis" forms. Our engineers can then tell how closely pH can be held with either present or proposed plant layout. Let's get together on that pH problem! You will not be obligated; simply write to Leeds & Northrup Co., 4967 Stenton Avenue, Philadelphia 44, Pennsylvania.

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with or without processing, it is an unfair trade practice for any member of the industry to discriminate in favor of one purchaser against another purchaser by furnishing certain services or facilities upon terms not accorded to all purchasers on proportionately equal terms.

(a) Said services or facilities referred to in the above paragraph IV are such as are connected with the processing, handling, sale, or offering for sale, of the products purchased, and the term "furnishing" as used in such paragraph IV shall be construed as including contracting to furnish, and contributing to the furnishing of, the services or facilities.

V. *Inducing or Receiving an Illegal Discrimination in Price.* It is an unfair trade practice for any member of the industry, in the course of commerce[1] in which he is engaged, knowingly to induce or receive a discrimination in price which is prohibited by the foregoing provisions of this Rule 15.

VI. *Exemptions.* The inhibitions of this Rule 15 shall not apply to purchase of their supplies for their own use by schools, colleges, universities, public libraries, churches, hospitals, and charitable institutions not operated for profit.

Rule 16—Coercing Purchase of One Product as a Prerequisite to the Purchase of Other Products.

The practice of coercing the purchase of one or more products as a prerequisite to the purchase of one or more other products, where the effect may be to substantially lessen competition or tend to create a monopoly or to unreasonably restrain trade, is an unfair trade practice.

Rule 17—Abetting Use of Unfair Trade Practices.

It is an unfair trade practice for any person, firm, or corporation to abet, coerce, or induce another, directly or indirectly, to use or promote the use of any unfair trade practice specified in these rules.

Group II

Group II rules are considered to be conducive to sound business methods and voluntary compliance therewith may be encouraged and promoted through individual or cooperative action exercised in accordance with law. Rules in Group II are optional and not mandatory, except that when any action is taken under such rules, observance of all restrictive provisions or inhibitions contained therein is required.

If a practice condemned by a Group II rule is pursued in such a manner as to effectuate an unfair method of competition or unfair or deceptive act or practice in interstate commerce, corrective proceedings in respect thereto may be instituted by the Commission.

[1] See footnote 1.

Rule A—Arbitration.

The industry approves the practice of handling business disputes between members of the industry and their customers and suppliers in a fair and reasonable manner, coupled with a spirit of moderation and good will, and every effort should be made by the disputants themselves to compose their differences. If unable to do so they should, if possible, submit these disputes to impartial arbitration.

Rule B—Return of Merchandise.

The practice, by members of the industry, of selling merchandise and later permitting the purchaser to return it for credit or refund of purchase price, without just cause, creates waste and loss, increases the cost of doing business to the detriment of both the industry and the public, and is condemned by the industry, subject, however, to the requirements and limitations named in Rule 15.

Rule C—Price Lists.

The industry approves the practice of each individual member of the industry independently publishing and circulating to customers and prospective customers his own price lists. The industry also approves the practice of such member including his terms of sale, independently arrived at, as part of his own published price list.

Rule D—Cost Records.

It is the judgment of the industry that each member should independently keep proper and accurate records for determining his costs.

It is the judgment of the industry that the individual and independent use by any member of sound cost-accounting methods, whereby such member's own costs are individually and independently determined by him, is in the public interest and is recommended by the industry.

It is understood that no action shall be taken under this rule which shall be in conflict with any provision of law or any provision of any order of the Federal Trade Commission with respect to the industry, nor shall any person be expected to use or adopt any cost-accounting method or system, or to comply therewith, except as he may desire.

Rule E—Dissemination of Credit Information.

The industry records its approval of the distribution among members of the industry of information covering delinquent and slow credit accounts insofar as such may be lawfully done.

Rule F—Repudiation of Contracts.

Lawful contracts are business obligations which should be performed in letter and in spirit. The repudiation of contracts by sellers or by buyers is condemned by the industry.

Rule G—Saturday-Sunday Closing.

In the interest of the public and industry employees, it is recommended by the industry that the members adhere to the usual practice of not opening their places of business on Saturdays and Sundays for the transaction of business.

Rule H—Labor Conditions.

It is the judgment of the industry that the elimination of oppressive child labor and the establishment of adequate minimum wages and reasonable maximum hours of work by all members of the industry are principles to be encouraged as being in the public interest and conducive to fair competition.

Rule I—Statistical Information.

The members of the industry believe that the collection and publication in the widest possible manner of statistics respecting market information on the operations of the industry as a whole will prove helpful to all interested parties. Such statistics shall not be compiled, disseminated, or used in any manner which has the effect of revealing the identity of any industry member, information peculiar to the operations of an industry member, or transactions engaged in by an industry member or a buyer of industry products; nor shall any person be compelled to furnish any data contemplated by this rule. The compilation, dissemination, or use of any statistical information shall not provide for nor result in any action violative of law or in conflict with the provisions of any order issued by the Federal Trade Commission with respect to the members of this industry. It is further understood that no action shall be taken under this rule which, directly or indirectly, would tend to effectuate the collective, collusive, or cooperative fixing or maintenance of prices, or other restraints of trade.

A Committee on Trade Practices in the industry may be created to cooperate with the Federal Trade Commission and to perform such acts as may be legal and proper to put these rules into effect.

National Gypsum Expands Warehouse

BUFFALO, N. Y.—The National Gypsum Co. plans to spend slightly more than $1 million principally for new warehouse facilities at its plants in Clarence Center, N. Y. and in National City, Mich.

Funds for the additional storage space are to be provided by the contemplated sale of 11,150 shares of the company's $4.50 cumulative preferred stock.

Proceeds from the sale will be divided about equally for the new facilities of both plants. Construction is scheduled to start this Summer and completed early next year. The enlarged warehousing at the two plants is necessitated by the many new products the company has added to its line during the last several years.

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All production machinery will last longer — give better service — if the proper lubricant is used. That's why you will find it profitable to use high quality Tycol oils and greases in your plant.

There's a reason! No matter what your lubricating need — *EXTREME PRESSURE, high or low temperature, high speed or any other service condition — there's a Tycol oil or grease suited to your specific requirements.

Refined from the highest grade crudes, Tycol lubricants are exceptionally resistant to breakdown which means greater economy . . . longer machine life for every type of equipment.

Tide Water Associated will gladly recommend the Tycol lubricant that meets your particular requirements. Call, write or wire your nearest Tide Water Associated office today.

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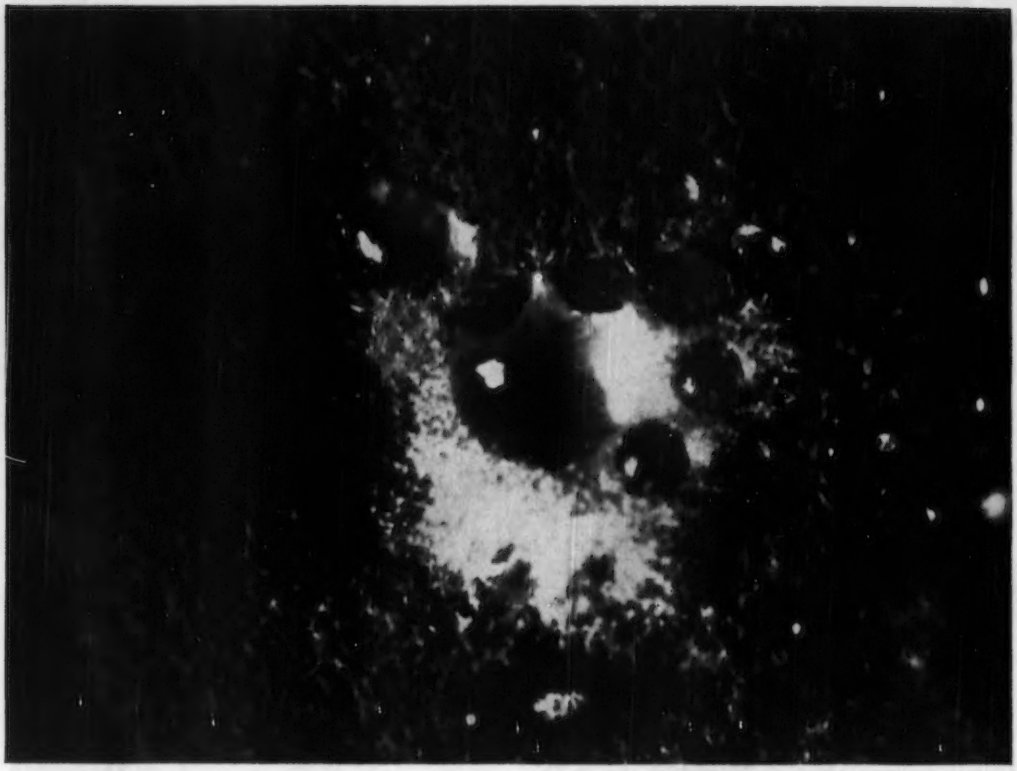

Aspergillus from growth on paper magnified 75X.

Beat the "Bugs" to the Draw!

Now you can ward off costly attacks of bacteria and mold *before* these microorganisms become numerous enough to cause production losses and wasted materials. You can keep them out of lap stock and prevent discoloration and loss of pulp which they often cause.

Like many leading paper mills, you'll gain proper microbial and mold control with Dowicides, Dow's industrial germicides and fungicides. Dowicides will bring protection against bacteria and mold.

Beat the "bugs" to the draw! Investigate Dowicides today. Complete laboratory facilities are maintained by Dow to help solve your problems. Contact your nearest sales office or write direct.

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INDISPENSABLE TO INDUSTRY AND AGRICULTURE

Organizations Serving Paper
And Pulp Industry—IV of Series

Ross Engineering—Builders Of Air Systems

In 1928 the Carrier-Ross Engineering Company, Ltd., was formed in London and from this outpost concerns in Europe as well as Great Britain have profited greatly from the progressive advantages of Ross Systems.

In addition to these various engineering and sales offices the company operates two fine, modern and fully equipped manufacturing plants along with one of the most outstanding laboratories for research and testing. One of these plants and the laboratory building are located in New Brunswick, N. J. The other plant, recently built to triple the capacity of a former plant in Canada, is located in the town of LaSalle, just outside of Montreal.

These Ross plants embody every advanced technique in operation and production. Falicities include complete power equipment for shearing, bending and multiple punching; every type of welding equipment including the latest development for welding aluminum; the most efficient arrangement of cranes, loading and unloading platforms for more economical handling of materials. Both plants are thoroughly equipped to handle sheet metal, aluminum, stainless steel and copper, sheet steel, plate fabrication, duct work and assemblies. Materials required for the huge volume of work handled is naturally purchased in carload lots.

The Ross laboratory in New Brunswick, N. J., occupies a separate building and is outstanding in many respects.

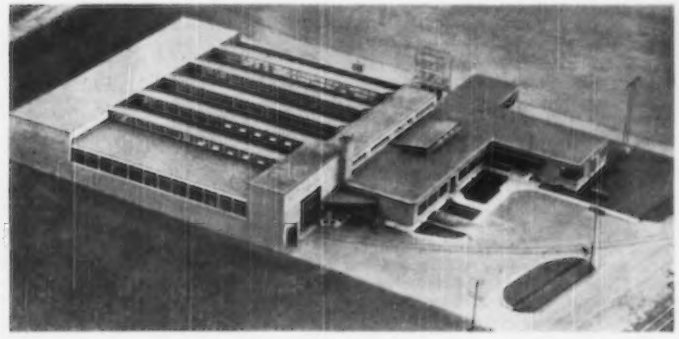
Plant and Laboratory at New Brunswick, N. J.

Its equipment is of such size as to permit tests that constitute a reasonable facsimile of actual field conditions. This equipment covers practically every type of apparatus and source of fuel used in heating, drying, baking and curing.

Research-Engineering

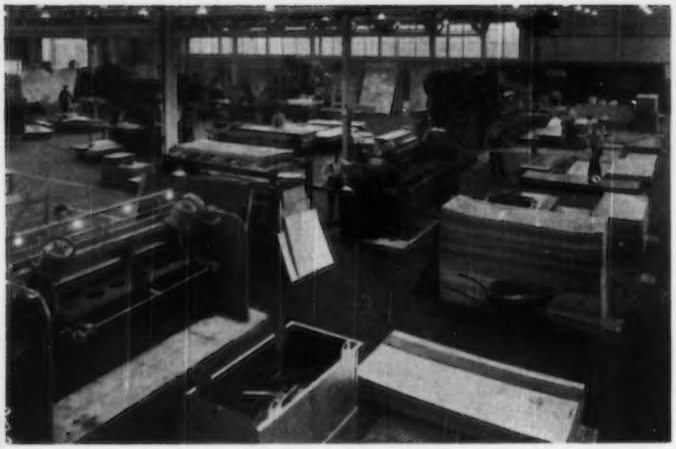
The J. O. Ross Engineering Corporation maintains complete facilities for research, sales and engineering at strategic points throughout the U. S. in branch offices located in Boston, Chicago, Detroit, Los Angeles and the main office in New York. Similar facilities are maintained in Montreal, Canada and London, England. From all these points experienced engineers work with management and production executives of mills throughout the industry and from this work there has accumulated a vast fund of scientific data and actual experience for use in solving whatever new or unusual problems might arise.

New Ross Engineering Plant only Recently built at LaSalle, P. Q.



J. O. ROSS
Founder and Chairman of Board

To meet the particular requirements, Ross engineers go deep in the client's problems. Processes are scientifically studied. Equipment is carefully surveyed. If tests or experiments are deemed necessary, they are made. Sometimes test data on hand prove sufficient. On new tests and experiments, prospective customers frequent-

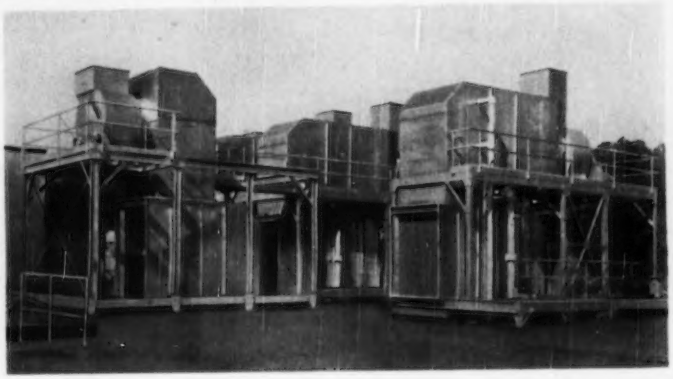


Interior View of Section of Engineering Plant.

larger, faster machines were being built but each addition to the size of the machine rooms and the speed of machines also added to the problems of ventilation. Increased quantities of vapor and condensate prevented the drying from keeping apace of the fast running sheets.

J. O. Ross had ideas for methods to meet these problems which, in general, involved the use of more scientifically designed apparatus to replace the hit or miss methods being utilized. Becoming impatient with the reticence of the equipment builders in those days to introduce what would be considered radical developments, he decided to start his own business to design, build and install new air processing and drying systems for the industry. He succeeded in interesting a few of his associate engineers in the possibilities for a business that could offer customers complete drying systems with every part carefully selected to coordinate perfectly with every other

ly send their material and their own experts to supervise and take part in the tests. Nothing is left unturned. Many minds are frequently pressed into service. Men known to have had special experience with one or more features of the problem being studied are brought in to contribute their views and ideas. The problem is tackled, not from the standpoint of a selling organization, but rather in the manner of a firm engaged in designing a system for its own use and utilizing its wide choice of specialists to devise the best systems. One man may contribute his knowledge and experience with an identical or similar material to that under discussion. Another, while not so familiar with the material, may have expert knowledge on the required conveying mechanism and the handling of the product. The method of air circulation or the best types of controls might be the particular province of still another in the group. In similar manner is determined the choice of the apparatus to meet all such requirements. For example, the location of the plant and the economy or availability of a source of heat usually determines whether high pressure or exhaust steam, hot water, oil, gas, electricity or waste heat should be used. Then there is the type of material to be used in constructing the system or apparatus and its availability. Selection on this point is of utmost importance if there is to be proper balance between the service life of the apparatus and its first cost. A favorite Ross formula for making such decisions is to pose the question, "How would we do it if the system was going into our own plant?" The answer to that question usually brings out essential considerations. In some cases first cost, even at the sacrifice of some efficiency, is the all-important item. In other cases, the urgency for assurance of continuous operation, highest conservation of heat or power, very close control of temperature, humidity and circulation might justify a much greater first cost if necessary.



Part of Ross Air System Apparatus on Roof of Finch Pruyn & Co. Mill. It is of aluminum construction, one of the first of this kind to be installed.

At a time when general business conditions are in a state of chaos, with the rate of individual business failures at an all-time peak, it takes a remarkable kind of courage to actually start up a new business. Apparently J. O. Ross, a traveling sales manager for a company selling paper mill equipment, had plenty of that kind of courage for he organized the J. O. Ross Engineering Corporation on January 1, 1921, when the now famous depression of the 20's was at its worst.

Having for some years traveled from one mill to another throughout the U.S.A. and Canada, J. O. Ross had become known as an authority on problems connected with drying, heating and ventilating in pulp and paper mills. He had an excellent opportunity to observe how inadequate were the existing production facilities for meeting the fast growing production demands of the paper industry that he knew would come. It was not long before old mills were trying to increase their output. New mills with part, and with the entire responsibility of the job—from blueprint to installation—on the shoulders of the organization. No longer would manufacturers with drying problems have to order many component parts and piece them together into a system as best they could.

The original organization consisted of four men and two girls — not very large for tackling a job as big as was obviously required. Incidentally, most of those men are top executives of the corporation today and members of an exclusive group now known as the "ROSS 25 Year Club," comprising men who have reached their 25th year with the company. With hard work and valuable cooperation on the part of open-minded consulting engineers throughout the industry it was not long before surprising developments took shape. The new Ross methods for drying and air conditioning really marked the beginning of a series of changes in both paper mill processes and machinery — changes that led not only to higher standards of quality and lower costs but also to entirely

new types of paper as well. Faster drying, made possible by Ross Systems, allowed much greater speed in production. They produced more uniform drying which permitted the production of wider sheets. Mills discovered that they could use much higher temperatures and, with these new Ross Systems for machine room heating and ventilating, vapor absorption, grinder exhaust, etc., new and practical methods of manufacturing paper came into use. This in turn led to the development of new, faster, more efficient paper mill machinery such as grinders, calenders, winders and handling equipment, as well as new machinery for printing decorative paper, coating and gumming paper and applying special finishes.

From that little organization gathered together in 1921 the J. O. Ross Engineering Corporation has grown until it is today the leading and largest organization of its kind in the world with branch offices in principal cities in the U. S., in Canada and England. Its activities have also expanded into all parts of the world, with mills as far away as Australia having installed Ross Air Systems.

Two years after the original business was formed in New York, another company, Ross Engineering of Canada, Ltd., was started in Montreal for the purpose of serving the industry in Canada. A Ross method for recovering waste heat was introduced at about that time and Canadian mills soon discovered that with this recovery system it took very little more steam for drying, heating and ventilating of a paper machine room in Canada than it did in Florida. Needless to say, every paper mill built in Canada during the tremendous development of their newsprint industry has installed Ross Systems. Likewise, throughout the U. S., something like 95 percent of all the mills in the industry are now operating these Systems.

W. K. METCALFE
Secretary, J. O. Ross Engineering Corp.

Ross Systems for Paper Mills

Ross Systems are custom built to suit the individual mill. There are no ready-made Ross systems. Standard basic principles are used but the various component systems are designed to suit local conditions. The product, type of machine, cost of power and steam, building construction, climatic conditions all are carefully considered in designing every Ross System. Furthermore, future expansion and possible changes of product are kept constantly in mind so that the system may be adaptable for these factors.

A list of some of the better known of the Ross Systems would include those for heating and ventilating machine rooms, absorbing vapor from dryer pockets, recovery of waste heat from vapor, machine hoods, felt drying, fresh and white water heating, moisture control, paper conditioning,

Ross Two Passage Dryer for Sensitized Paper in the Ozalid Plant. The Height is that of a Three Story Building.

air conditioning, cooling for aisles, calender cooling, generator room ventilation, grinder exhaust and similar systems.

It has been estimated that more than 200,000,000 c.f.m. of air is being handled by Ross equipment throughout the industry in the U.S.A. alone. The largest machine hood in the world was designed and built by Ross and reports from mills indicate that savings in steam costs amounting to thousands of dollars per month are being secured in individual mills through the operation of Ross heat recovery systems. These recovery systems are not only used to heat air but to process water as well, and the combined savings in steam costs reach an impressive figure. Ross Systems for vapor absorption have increased paper machine drying capacity 10 percent to 45 percent depending on the type of air system installed.

Facts, such as these, make it easy to understand why Ross Air Systems are today practically standard equipment for the manufacturer of paper and why the Ross business has grown to its present dominating size and position from its small start in 1921.

S. W. FLETCHER
President, J. O. Ross Engineering Corp. and Ross Engineering of Canada, Ltd.

Converting Apparatus

Ross Systems are as popular in the converting branch of the industry as they are in the paper making field. Prominent converting plants use this equipment for such processes as coating, impregnating, flocking, fusing, printing, etc. In many such plants Ross engineers are called upon to arrange for a complete machine line from initial treating to final winding and many remarkable new developments have recently been announced in this type of equipment.

In this field, the Ross organization and clients are in the favorable position of having the benefit of the extensive experience and manufacturing facilities of the John Waldron Corporation, for more than a century the leading manufacturer of paper converting machinery, and now an affiliate of Ross Engineering. Close collaboration between these two great aggregations of top-flight engineers and designers has produced most of the modern machines and machine lines operating today in the manufacture of converted products in the paper, plastics and textile fields. Some of the better known are the transparent wrappings, such as cellophane, lacquer and cellulose coatings, latex treated materials, impregnated resin products, fabric and textile treatments and all the multitude of new products of a rapidly changing industrial world. In nearly all these cases there were required new Ross Systems for handling explosive fumes, recovery of solvents, refrigerated air, new and improved processes, and providing and applying air and controlling it at any desired condition of purity, temperature, humidity and velocity.

Other Fields Served

Although we have confined ourselves in this article to the activities of Ross Engineering in the pulp and paper industry, Ross Air Systems have achieved an almost equally dominant position in many other industries such as textiles, rubber, plastics, metal finishing, foundry, wire, etc. Probably no other engineering organization has been called upon to work out the processing problems of a greater variety of manufactured products. From the tiny cotton wad for a cartridge to the gleaming body of an automobile, hundreds of different products are being produced faster and better with air from zero and below to 1000°F. and higher, supplied and handled by Ross designed and built apparatus.

Organization

The executives responsible for the far-flung activities and successful operation of this huge business include: J. O. Ross, chairman of the board; S. W. Fletcher, president; A. E. Montgomery, vice-president; F. W. Partsch, vice-president; H. G. Rappolt, vice-president; C. J. Schmidt, vice-president; W. K. Metcalfe, secretary; J. F. Forsyth, treasurer; J. M. Petix, assistant treasurer; G. A. Etzel, assistant secretary; R. H. Melin, assistant secretary. The engineering executives of the organization are: L. G. Janett, R. W. Morsch, L. Allman, K. H. Jones, J. M. Petix, J. F. Gschwind A. W. DeRevere, T. F. O'Grady, C. H. Teall, G. H. Cash, W. A. Schoenbeck, P. D. Hoecke, O. Byron, J. D. Wood, A. S. Dawe, E. L. Boughner, J. F. Fallon, C. E. Blanchard, C. M. Mackenzie, W. C. Klesnor and W. H. Vander Veide.

Durisol Light Weight Pre-Cast Concrete

JOHN D. DALE
Durisol, Inc.

Durisol is a light weight, pre-cast concrete material utilizing a mineralized organic aggregate and Portland cement. In the United States, we use chemically-mineralized wood shavings and it is the chemical treatment prior to the addition of the Portland cement which makes Durisol unique. It is this process which makes useful a vast tonnage of by-product wood shavings from the wood-working industry and which provides in the finished product an incombustible, insulating and sound-absorbing material which is not subject to attack by mold, fungus, rats or termites. Neither is it affected by moisture or by freezing and thawing, except under the most unusual conditions.

The name Durisol is derived from a combination of the French words meaning "durable" and "insulation." The basic product was developed in Switzerland and Belgium in the early 1930s, *not* as a result of looking for a way to utilize wood shavings. On the contrary, two Swiss engineers first realized the need for a product combining the physical properties of Durisol and then looked for the available raw materials with which to make it. From that point on, the story is almost routine: years and years of engineering work with the patience and thoroughness so typical of the Swiss, the Durisol product has been developed to a very high point in its application to all sorts of building construction.

The stated objectives in the development of Durisol were to make a material, the raw materials for which exist everywhere, a material which possesses the machineability and some of the good characteristics of wood, and which, at the same time, possesses the durability and stability of concrete; yet which would possess a minimum of the drawbacks of both. The result was more than had been hoped for.

Durisol is essentially a pre-cast concrete having a density of approximately .60. The density is controlled between .45 and .80 by the assortment of wood shaving sizes used in the mixture. It only weighs 35 lbs. per cu. ft. It has a K factor of .75 or lower depending upon the density. Although it can be handled with ordinary carpenter's tools, because of its durability and rough texture, plaster, cement or stucco may be applied directly to it without the use of lath, with such powers of adhesion that it takes a pull of 31,000 lbs. to remove such a coating from the standard 24″ x 48″ slab. This makes possible the manufacture of a finished building product on a production line in a continuous operation, so that the slabs which are delivered to the building site need only be assembled to the framework of a building. No pointing, patching or painting are involved. The slab is finished when it leaves the factory.

Durisol is available in other shapes, such as the soffit tile which makes possible the formation of standard reinforced concrete joist construction, with the Durisol first being used as the form set up on open timber framework. After the reinforcing steel is placed and the concrete poured to form the required floor or roof, the Durisol remains in place and furnishes an acoustical ceiling with sound absorption of .87 at 512 cycles. It may be painted with almost any kind of paint if a light finish is required, with the sacrifice of only a fraction of its sound absorption property. If a smooth plaster ceiling is called for, a two-coat application of gypsum plaster may be applied directly to the Durisol without lath. The Durisol also furnishes extraordinary heat insulation and it reduces the transmission of noise between floors to a point of being inaudible. Moreover, this type of construction is extremely light in weight and costs ⅓ less per cu. ft. than poured concrete.

The general purpose uncoated Durisol slab, in thicknesses of 1¼″, 2″ and 3″, makes an excellent rigid sheathing board with high insulation properties and an excellent base for both stucco and plaster. With a conventional wood frame it is possible to build a virtually incombustible building which will stand a fire for one hour, from either the inside or the outside of the building. These Durisol slabs are nailed directly to the inside and the outside of the wood framework, with finished stucco later applied to the outside and plaster to the inside. No additional insulation, furring, waterproofing, or other materials or treatments are necessary. In those areas where personal taste calls for wood siding or shingles, these may be applied safely and securely with split nails driven into the Durisol or by driving common nails through the Durisol into the wood framework.

Durisol can also be used readily in combination with structural steel, reinforced concrete and wood. The Durisol provides insulation, fireproofing, sound absorption and structural rigidity in one material and at one installation cost. Durisol has been installed in a great many major eastern cities and as far west as Minnesota, and is approved and rated by the fire underwriters, and by various important municipal, Federal and State agencies. This product is not the result of a laboratory experiment. It is a substantial, accepted building product which is being used widely in the United States, in six European countries, India, Argentina, Morocco and the Netherlands East Indies.

Presented at the Wallboard Conference of Northeastern Wood Utilization Council and published in Bulletin 31 "Wallboard Production and Uses."

For the past nine months the company has concentrated promotion on the Structural Insulated Roof Plank. This roof plank has been approved by and used in a great many of the leading cities of the East and it has been accepted almost spontaneously by architects and engineers, who recognize at once the convenience and economy of installing not only the deck but the insulation in a roof with only one material cost and one installation cost. This plank provides a roof ready for application of the bonded roofing, equal for example, to 2" of concrete channel plank plus 1½" or more of rigid insulation with its "U" factor ot 0.15. What is more, it is designed to carry an ultimate uniform load of 250 lbs. per sq. ft., and in tests conducted for the City of New York Board of Standards & Appeals the actual ultimate loading was in some cases over 370 lbs. per sq. ft. As Durisol will not absorb moisture, it overcomes one of the most serious objections and, in fact, one of the most dangerous elements ,in the use of concrete plank for roof decking. Whereas concrete will not only absorb but retain moisture, a continuing condition of freezing and thawing will ultimately result in the the destruction of the strength of the plank. What little moisture may be present in the form of atmospheric vapor in the Durisol Roof Deck is neither absorbed by the Durisol nor is it possible for a material with a density of only .60 to retain any such quantity of moisture as to result in rupture of the material. There is another real difference between the Durisol Roof Deck and any other conventional product on the market. By leaving the underside of the plank exposed, or even by dressing up the rough under-surface with a coat of paint, it provides one of the best acoustical ceilings available anywhere at any price. This is of such vast importance to hospitals, schools, factory buildings and homes that I need make no further comment — especially when this important feature costs no more than if it were not there.

In fact, the Durisol Roof Plank which may be used on spans up to 10', costs a great deal less per sq. ft. installed when the economy of structural steel or timber is calculated. Durisol cannot compete directly in price with un-insulated roof decking of wood, steel, gypsum or concrete where no insulation is called for. More and more people are becoming aware of the false economy of eliminating insulation in a roof, especially when they find out that it costs $5 per sq. ft. per year more to heat their buildings in the wintertime if they fail to insulate. In other words, the slight additional original cost of insulation is paid for in one or two years by the saving in fuel consumption.

What does all this mean to the producer of a wood waste byproduct? The present capacity of our Beacon Plant, designed to serve the area around New York and part of New England, is 250 cubic yards of finished Durisol per day. This represents roughly 300 carloads of byproduct wood shavings per year, nearly 5,000 tons of dry shavings without sawdust. A series of Durisol plants strategically located throughout the United States and Canada, operated by sub-licensees under Durisol patents, would go a long way toward making a useful, effective building material out of what today represents a tremendous loss of wood in wood utilization.

The Characteristic Physical Properties of Durisol

Control of qualities:

The qualities of standard Durisol are suitable for its uses as light weight building slabs, exterior wall slabs, false ceiling slabs, floor soffits, etc. It is possible to produce a special light weight Durisol for mainly insulating purposes or a denser Durisol with better than standard mechanical strength.

TABLE I

Specific gravities:	
Standard Durisol	.58
Durisol in hollow slabs	.60
Hollow slabs	.48
Light weight Durisol	.43
Dense Durisol	.80

(Basis: Water=1.0)

TABLE II

Bending strength:	
*Durisol hollow slabs	130 - 170 psi.
Dense Durisol up to	280 psi.

Compressibility:

Destruction of Durisol specimens, as a consequence of the high resilience of the material, begins after considerable compression. First destruction is of local protruding chips at 56 psi. A solid slab of 2⅛" thickness will be compressed by 5/32 in. at 230 psi and only the surface will show visible signs of slight destruction. With cubes, destruction—that is to say occurrence of cracks—will begin only after a compression rate of 10 per cent.

TABLE III

Compressive strength:	
Concentrated load on coated hollow slab	
Cube crushing strength, 4 in. x 4 in. x 4 in. cube, standard mix 170 to 330 psi.	240 psi. mean
special mix up to	500 psi.
Cube, cut from solid slab	170 psi.
Cube, cut from hollow slab	70 psi.
Concentrated load on 2⅛" solid slab	480 psi.
Concentrated load on uncoated hollow slab	85 psi. to 130 psi.
Concentrated load on coated hollow slab	155 psi. to 170 psi.

TABLE IV

Young's Modulus of Elasticity	
In bending test:	
at beginning of deformation	E = 21,000 psi. to 40,000 psi.
in range of strains proportional to stresses	E = 80,000 psi. to 100,000 psi.
near yield point strength	E = 60,000 psi.
In compressive test:	
measured near centres of compressed samples solid slabs	E = 35,000 psi.
hollow slabs	E = 40,000 psi. to 70,000 psi.

If strains are measured between the load-exerting bearings, then divergent figures may be attributable to local destruction of the rough surfaces.

The moisture content of Durisol will adapt itself rather quickly to changes in relative air humidity. The smaller the wood particles the quicker is this adaption. The influence of temperature on the moisture content is far less than the influence of relative humidity.

Complete matured slabs will have about the moisture contents shown in *Table V.*

TABLE V

Moisture content:	
at .35 relative air humidity	4.5% Vol.
at .50 relative air humidity	5.0% Vol.
at .70 relative air humidity	5.5% Vol.
at .90 relative air humidity	8 to 10% Vol.

Influence of moisture content on qualities:

Moisture content will not be the same throughout a section of a slab and the highest values will be found in the median zone.

Usual rates of moisture content up to 10% are not a factor with respect to thermal conductivity.

The strength of slabs will decrease when these are forcibly dried in a furnace.

The strength of slabs will decrease too when their moisture content increases over 13%.

The loss of strength can attain to 30% when the samples are kept under water for 24 hours.

Absorption of water when moistened:

Three kinds of water absorption should be distinguished:

a) hygroscopic absorption
b) absorption by capillary attraction
c) absorption by adhesion on surfaces of microscopic pores.

Slabs, the hygroscopic absorption capacity of which is saturated, will be able to absorb another 20% of liquid water.

This absorption does not take much time and therefore condensation hardly ever occurs on Durisol surfaces.

Condensed water would immediately vanish in the Durisol if the latter is not too cold.

TABLE VI

Heat Insulation Value

*Thermal conductivity (k) ..B.T.U. /sq. ft. hr/°F Temp Dift.—inch thickness	
Standard Durisol	.75
solid slabs (coated)	.85
hollow slab (coated)	.97
Loose Durisol	.65

Thermal Movement

Coefficient of thermal expansion=0.000,008 in. per °F

Fire resistivity

Durisol structures are incombustible and are fire stopping. Charring of the constituent wood particles begins at 530° F to 570° F.

*Durisol hollow block walls have stood a 5 hour test with only 30% loss of strength, and are approved as party walls by Belgian and Swiss authorities. Tests are not yet run in the United States on hollow block walls.

Frost resistivity

*Freezing and thawing of thoroughly wetted slabs did not entail either visible damage to the slabs or significant loss of strength.

Sound absorption

*The sound absorption capacity of uncoated Durisol slabs was tested in a reverberation chamber. The sound absorption coefficients = ratio absorbed sound energy to incident sound energy are shown in *Table VII*.

TABLE VII

Sound Absorption

Pitch of tone c. p. s.	*sound absorption a*	*coefficient a' = log 1 / 1 - a*
150	.12	.18
300	.33	.40
600	.65	1.05
1,200	.54	.77
2,400	.57	.80
4,800	.60	.92
9,600	.60	.92

The sound absorption capacity, as may be derived from these figures, is as good as that of any material designed especially for acoustical properties.

Rot resistivity

*Bacilli, mold, fungi and dry rot, etc. do not affect Durisol.

Open texture

The ratio of pores in Durisol is about 50% of its volume.

Bond between Durisol and plaster or concrete coatings

Resistance to shearing off or tearing off is 40 psi.

Reinforcement

Durisol structural units may be reinforced by the following methods:
coating with plaster or cement,
insertion of or bond with concrete ribs,
insertion of timber rods,
insertion of steel reinforcing bars.

Computed bending strengths of coated slabs are 200 to 230 psi. for cement coated and 170 to 200 psi. for plaster coated.

Bending compressive strength of ½ in. concrete coats up to 5,000 psi.

Bending shear strength of Durisol equals bending tensile strength, destruction by principal tension.

TABLE VIII

Sound insulation

* Sound reduction factors in db.

Structure of Wall	*Unit Weight lb/sq. ft.*	*Sound reduction factors db at 100/500 c. p. s.*	*at 800/480 c. p. s.*	*Mean*
1⅛" Durisol, 3⅛" air space, 3⅛" Durisol	25	42.0	50.0	46.0
as above, but with blanket of absorbent material in the air space	25	42.0	51.5	47.0
as above, but .205 lb./sq. ft. glass wool in the air space..	25	42.5	52.0	47.5
2" Durisol, 2" plaster, slab, light	20	30.0	42.5	36.5
2" Durisol, ¾" air space, 2" plaster slab	20	43.0	53.0	48.0
With increase of air space some slight improvement of sound red. factor is attained.				
2" Durisol, 3¼" air space, 2" plaster slab, blanket in air space	20	47.0	53.0	50.0
2¼" Durisol coated slabs partition, joints with felt	11	29.0	35.0	32.0
6" Durisol hollow block wall	45	40.0	47.5	44.0

*Tested by the Federal Institute for Testing Materials.

The Social Responsibility of Business

WALTER H. WHEELER

President, Pitney-Bowes, Inc., Stamford, Conn.

I have made this speech, or variations on the same theme, a number of times in the last several years. And let me confess, I shudder a little bit every time I begin talking about industry's new responsibilities. I know, of course, that while I use the all-inclusive term, "industry," what I'm really saying is that you and I, individually, must pile on our shoulders new jobs and worries. I don't know about your shoulders, but I sometimes think mine would collapse from the additional weight of a flake of dandruff.

I don't become depressed easily. Most business leaders, I think, have to be optimistic by nature, and I hope I am typical in that respect. But there are evenings, as I sit behind a desk piled high with the day's unread correspondence, when I stare darkly out the window. Trying to see me are three conscientious executives, who would like to remind me, if they dared, that we're in business to make a profit, and that I must spend *some time* on the problem of sales, manufacturing and development. There is a Community Chest meeting in five minutes, and a directors' meeting tomorrow morning,

neither of which I am prepared for. I am supposed to make a talk before the American Management Association in two days, and I haven't started to think of what I shall say. . . . And I am tired.

While I am not being tested for the same moral courage that Job was, I can sympathize with his cry: "My days are swifter than a weaver's shuttle, and are spent without hope."

At times like this I dream of establishing a Society for the Advancement of Irresponsible Businessmen. Each one of our members would bargain with his own conscience to get certain obvious benefits we all need: A fifty-six-hour week, and a seventy-five-minute hour. This would do for a start.

And yet, as if to personally prove the obstinate nature of man, I go on talking about our new responsibilities whenever I get the opportunity. And I have another opportunity today.

It seems to me that none of us in business can look forward with hope over the years unless all of us can find solutions to problems bigger than our immediate material progress. We *must* find the right balance between opportunity and security, between freedom and responsibility.

The society we live in has become an incredibly complex one. It poses questions that are hard to answer, questions for which there are no ready-made answers. But we in industry must find the answers, nevertheless. And we are fortunate in one respect, of course, because more than half the

Presented before the Production Conferences of the AMERICAN MANAGEMENT ASSN., Tuesday, April 8, 1930 1:30 p.m. Hotel Statler, New York City.

world's peoples have lost even the free right to search for them.

I think most of us would agree that the free world today, for better or worse, depends on U. S. leadership. And while there are many factors in this leadership, we must admit that it is predicated on our keeping our economy healthy and progressive. That's where we come in. And that is why we have heavy responsibilities.

At the root of most of our problems in business today is the fear of socialism. We see its gradual approach and we are frightened by it. While we have the natural desire of any class to protect itself and resist encroachment, most of us, I'm convinced, are perfectly sincere in our belief that our opposition to socialism is in the broad public interest. We like freedom, and we believe that economic coercion by the state, whether through ownership, mindless taxation, or improvised control, inevitably will lead to a loss of personal freedom.

If this weren't our basic conviction, we might just as well embrace socialism, as a good many English businessmen did after the war. I say this because actually most of us would lose no status. Management is a very functional class; there aren't many drones among us today. And whatever form of government, we, or people with our talents, would survive and continue to function, with equal status and roughly equivalent compensation.

Assuming our good intentions, then, the great question for us is, what do we do about the problem? How do we prevent socialism?

There are many answers today . . . too many. But most of them have one common denominator: They are negative, abstract, and, I am very much afraid, ineffective. They rely on rooftop warnings, page ads filled with forbidding type and exclamation marks, and so-called economic education programs, designed to "resell" the basic principles of private enterprise.

I can understand the impelling urge to shout warnings to the public. Those of us in business who see clearly the danger of our present course feel very much like a man who is trapped with his neighbors on ground that is surrounded by flood waters. In the midst of reassuring stillness, we have suddenly realized that the waters of socialism are lapping insistently higher, nibbling away our capitalistic earth. It is natural for us to shout warnings, but these alone aren't enough. And while I am in danger of drowning myself with this metaphor, I should like to say that it is not so much a question of trying to build temporary, or even permanent dykes, but of raising the entire level of solid ground. By raising the ground of well-being for all our people, through the promotion of a dynamic and democratic capitalism, we will dissipate the danger of engulfment by socialism.

We must build slowly and surely, to be sure, but we must work to raise the level of security, as well as the ceiling of opportunity provided by our free society. We must realize that the floor of security inevitably must rise, whether it is fashioned by government or privately; that it has constantly risen since the dawn of civilization, and that it will keep on rising. Our job is to keep the level rising in private industry, and thereby keep the ceiling of opportunity rising in a parallel curve. We are in danger only when the ceiling begins to close in on the floor, stifling initiative. And that danger threatens only when we move forward so reluctantly and slowly in private enterprise that we literally encourage, if not force, the people to call in the government.

The true conservative position is to conserve the best of the past, as we make sound progress into the future. And the best of the past, we should remember, was not achieved in a static society, but in a fluid one, subject to change. We should remember the advice of that great English conservative, Edmund Burke, that "the state without the means of change is without the means of its conservation."

Let's look at some of the goals of socialism ,or more accurately, the welfare state: prepaid medical and hospital protection; stabilized employment; adequate pensions; broader educational opportunities. If we put ourselves in the place of the worker, or the clerk, can we honestly deny that these things, individually, are appealing? I doubt it. Can we even deny that they are desirable?

What we do deny, of course, is that it is a good thing for the *government* to provide them all — and now. But if we admit they are appealing and desirable, and if we believe that our economy, with its constantly rising production and standard of living, can afford to provide them, then that puts the issue squarely up to business leadership. If we don't like solution by law, let us show some initiative and ingenuity in providing them as fast as we can, voluntarily and privately.

We really have very little choice about the matter. The things I mentioned above are coming anyway. The only question is, who shall provide them? If we don't, the people, expressing their desires through their elected representatives, will call on the government for action.

And if this happens, I, for one, shall regret it. Because I believe they can be provided by business and industry with far less waste than if government provides them. If we provide them privately, a good portion of the cost can be met by the increased efficiency and productivity resulting from improved morale. On the other hand, if the government provides them, we still will foot the bill through taxes, and we will be discouraging initiative as we do it. What is even more important, however, is that if we do it privately, we shall be getting public recognition and credit for doing some of the good things the people want — for a change. Our current reputation, by no means justified, is that businessmen are against "good," per se. We need only to go on offering blind opposition to make that impression a permanent part of American Folklore . . . and the American businessman an extinct curiosity.

Historically, it was inevitable that we should have come to the crossroads we now face. The development of our democratic industrial society made it a foregone conclusion, but we couldn't see this so clearly as we do now. We protect minorities from unreasonable abuse by law, but basically we subscribe to rule by the majority. Two things have happened in the last thirty years: The majority has become more literate in the uses of political and economic power, and our society, which business, after all, has shaped, has become more complex and frustrating, and less secure for the average individual.

The results of recent elections, and the clamor for social and economic legislation which we don't approve of are natural concomitants of these two changes.

It is my belief that we should have anticipated this change as it occurred, and thus shaped the forces which produced it for the common good of all of us. Instead we have cried over lost prerogatives and watched the crowd go by.

Several years ago, Walter Lippmann analyzed the position of the American businessman. He cited de Tocqueville's study of the English and French societies of a century ago. The French statesman had concluded that British aristocracy survived at that time because its members had accepted large responsibilities in return for the privilege of governing, while the French nobility had fallen because it couldn't bring itself to give up its special consideration and immunities. Lippmann said U. S. Business was faced with the same alternatives today, and that it would survive or fall, depending on the choice it made. The great danger to us all, he said, was that American business would make the same mistake as the nobility of France — that it would brood over its grievances, lost prerogatives, and diminishing immunities, instead of concentrating on the commanding position it held in national and world affairs.

We in business leadership today are not an aristocracy of class, and most of us know it. The great majority of us earned our way to the top, and we are proud of it. We are an aristocracy of skills, and we should remember it. Our claim to leadership, like the freedom we talk about so much, must be continually earned. And it must be earned in the future, not in the past.

Perhaps you've heard the story of the man in Paris during the 1848 revolution who saw a friend marching after a crowd toward the barricades.

He warned the friend that these could not be held against the troops, that he had better keep away, and why on earth was he following these people? "I must follow them," he replied, "I am their leader."

This story may be interpreted two ways, and it applies either way we take it. Leaders always must, to a certain extent, be followers, for what are leaders if not the fortunate few who can articulate and anticipate what the followers want? At the same time, the story's surface meaning reminds us that we have been trailing the people we once led, while still pretending to wear the mantle of leadership.

On the surface, the idea that business leadership can begin anticipating the social and economic needs of the people would seem to be an impossible task. But I am convinced it can be done, if only we apply some of the ingenuity and courage with which we traditionally attack our problems in sales and manufacturing.

Let's consider an example. The doctors of the nation are facing a real battle today. They are finding that many more people than they supposed are ready to go along with the government's proposal for national health insurance. Quite naturally, they fear and oppose the proposal. And while their opposition is partly selfish, I am convinced that it is largely altruistic. They believe medical care would deteriorate under the plan, and they may be right. But will they win their battle by using persuasive logic, with talk about socialism, with leaflets and broadsides in their waiting rooms, with a two-million-dollar public relations fund? I doubt it.

On the other side of the picture, there is the public. Whether a majority of the people has made up their mind finally yet, I don't know, but a substantial number, anyway, desire a better method of insuring themselves against catastrophic illness and budgeting for their medical and hospital needs. Who can quarrel with this desire?

The answer, then, is at once apparent. It's a complex problem, and it will take a lot of work, but suppose the time and effort and money now being spent in stand-pat opposition were to be used to find ways and means of making voluntary plans broader and more effective, of bringing medical care to marginal areas, of exploring the possibilities of group clinics, in order to reduce costs? Suppose, too, that we in business backed the doctors up with more adequate funds for our hospitals, our Community Chests, and other private social and medical services? Suppose, finally, that we supplemented these efforts by getting behind some sort of compromise bill, like the ones offered by Senator Ralph Flanders and Senator Paul Douglas.

If these things were done, the demand for extreme government action would certainly dissipate, and the ultimate victory for the cause we all believe in would be a great one.

Along another avenue, it must be obvious to all of us by now that the greatest threat to the continuation of free enterprise and our free life is the business cycle, and the mass unemployment its depressions bring. It's a problem we've talked about a great deal, but we have spent so much time making sure that the government doesn't do something about it, that we have scarcely had time to study what we, as businessmen, can do ourselves. There are a great many things we can do about it, and we had better take the time to find them. We should know that the pressure for socialistic measures will multiply a thousandfold if we should again experience mass unemployment.

While we're talking about unexplored areas of employment stabilization, let me say that there is one field in which I believe the government might take the initiative, and that is taxes. You will remember that the government encouraged plant expansion during the war crisis by allowing an accelerated depreciation rate for new plant and equipment, and then materially reducing taxes for the companies which invested in them. I believe the subject of tax incentives should be explored, using the profit motive from time to time to encourage company and individual action which is in the public interest.

If the private profit system should fail without ever trying to utilize that most basic incentive motive in the interest of public welfare, it would be a calamity indeed. The use of tax incentives keeps the government out of any directive or managerial position in the economy—as it should be kept out—but it allows it, as it must, to establish the rules of the game so that it will be played in the best interest of all.

These, then, are some of the responsibilities we have outside our business. I wish I could say that I believe their assumption would automatically solve our problems, but I can't. We in industry have a more immediate problem that is equally basic, and it, too, must be solved if business is to survive in its present form.

This problem is an outgrowth of a conflict which too few of us recognize . . . a conflict between the freedom of expression which all citizens enjoy in their private and political life, and the relatively autocratic life which we find in industry. This is the real problem for us, I think.

The current issue of the Harvard Business Review defines the paradox very well, I think: "One half of the worker's waking life is spent among the free-citizen rights and responsibilities of political democracy; the other half is lived in an authoritarian situation in which free interest is frustrated both by imposed leaders and by the transfer of skill and responsibility to specialist planners of various kinds. Out of this split comes class consciousness, aggressive dispute, or regressive apathy."

Business, basically, must be authoritarian, I think, but that still leaves a lot of room for exploring the areas which can be made more democratic and self-governing.

The problem, put simply, is how do we go about directing ever greater numbers of people in such a way that they will accept our direction and not undermine it? In the final analysis, this is the old problem of leadership in a democratic society. The fact that it is not new, however, should not blind us to its urgency today.

I can't venture all the answers here, but I should like to offer a few that I have been studying myself. One possible answer is to be found in the variety of techniques which all of us read about constantly: Better communications between management; suggestion systems; more and better supervisory training, and many other methods and media.

I'm no great believer in the curative powers of techniques as such, but there are two that work well for Pitney-Bowes, and that, with variations, might work well for other companies, too.

The first is profit sharing. We all know that profits are a great point of contention today. We also know that they should not be. Profits are nothing more than the basic risk premium we pay on the future security of our economic society. But how do we convince employees of this fact. Frankly, without profit sharing in some form or other I don't see how we can. Every first-grade teacher knows that education is most effective when it involves *participation*. We in business have bemoaned the lack of basic economic knowledge that workers have. We urge employees to increase their efficiency, we explain the importance of productivity and the necessity of profits. But, when all is said and done, without profit sharing in some form I think we are wasting our breadth.

Employees, after all, do have a stake in the business in which they invest a part or all their working lives. And, after a reasonable return has been paid to stockholders, it is only fair and just the employees share any return beyond that. It is an antiquated concept, it seems to me, to draw a profit line—a battle line — of distinction between capital and labor, while giving lip service to "partnership."

Profit sharing, incidentally, is one of the obvious answers to the current demand for security and pensions. Deferred plans providing retirement incomes, and financed from profits, already are in use in a good many companies. A survey of employee opinion, taken by the magazine, Modern Industry, reveals the interesting fact that 63 per cent of the workers, both wage and salaried, would approve a pension plan based on profits.

The second thing we have at Pitney-

Bowes is an organization which we call the Industrial Relations Council—a peacetime version of our wartime labor-management production committee.

We are currently revamping it to make it more representative and to give employees more direct participation in and understanding of management. Elected employee deputies meet regularly with management representatives on every level throughout the plant and offices to discuss every phase of the business, including productivity, work methods and other tough problems. Through these meetings, management learns how the employees feel, and why they feel that way. At the same time, management is able to share its problems with the people whose co-operation usually is required in order to solve them.

Aside from the fact that it is good democratic procedure, this practice of having employee advisory groups is valuable for another reason. It allows employees to participate in the decision-making function—at least in an advisory capacity — and thus helps overcome one of the chief psychological vacuums in the modern industrial organization. Once again, it is possible to educate by participation. The only way employees become responsible is by helping make decisions and taking the responsibility for them.

As they do this, of course, they learn something of the function of management, and this is a thing employees need to know about. Most employees have only the vaguest notion about what management does. Not knowing, they are often resentful and irrational in their behavior to us, as many of you can testify.

Please don't misunderstand me: Discipline is still necessary in any well-run, efficient business. But so is leadership—the sort of leadership that delegates authority, spreads responsibility, and consults with those who are led.

It may sound like heresy, but I believe business and industrial leaders will very largely determine whether or not we have socialism in this country. By our action or inaction, we will decide the issue.

If we stay on the defensive, and depend on abstract appeals to stem the tide, we will hasten the Welfare State. If, on the other hand, we boldly assert our leadership, and identify ourselves with the worthwhile aspirations of the majority of the people, we can preserve the free economic society and make it better than ever before. I hope we make the right choice.

The Paperboard Situation

Report by George E. Dyke

President, National Paperboard Assn.

It's a great pleasure to welcome so many of you to this spring meeting of the members of the National Paperboard Assn. Moreover, I do so with the conviction that as an industry you have enjoyed an active and reasonably prosperous period since I last had the privilege of talking to you and, what is probably more important, that you can anticipate a continuation of this comfortable atmosphere at least for the balance of this year.

Because over a period of time personal contributions to association activities influence the character of such organizations, it is with the deepest regret that I have to report the death since our last meeting of two men who have contributed much to this association.

Mr. Grafton Whiting, who has served as statistician of our association from the time it was organized in 1933 until about one year ago, passed away at his home in Evanston, Ill., March 31, 1950.

Grafton contributed much to our association and to the paperboard and related industries. He was a fine, outstanding gentleman and the energy and effort which he put into his work will long be remembered. Particularly, the Paperboard Industry Yearbooks which he initiated will stand as a monument to his ability.

Russell W. Whitney, vice-president, The Hinde & Dauch Paper Co., passed away on March 9, 1950. We have lost a dear and respected associate and a man who was a credit to the industry in which he was engaged.

We shall never forget the brilliant job which Russ performed in filling a most important post with the War Production Board during the period of World War II. Truly he served with distinction. We respected Russ' ability; we loved him for his gracious and friendly personality, and his willingness to go all-out in helping a friend in time of need.

Appropriate resolutions were adopted by our association, copies of which have been transmitted to The Hinde & Dauch Paper Co., and to Russ' bereaved family. With them we share an irreparable loss.

Happenings in Paperboard Industry During Recent Months

Now let us see what has happened in the industry since our annual meeting in November of last year: Perhaps one of the most important things is that production for the first quarter established an all-time high for any quarterly period. During this period production was at an annual rate of approximately 10,500,000 tons. To produce this tonnage, the mills were operated at approximately 91 per cent of a full six-day week, and this volume was made without a weakening of order books.

While there has been some accumulation of inventory—and we would be better off if this had not taken place—the amount is not excessive, but it could well be if production equipment is not intelligently scheduled over the balance of the year.

As I have pointed out at previous meetings, the service character of this industry requires that production capacities be large enough to meet peak demands and to allow for the normal growth of the industry itself. If such capacities are provided, it naturally follows that there will be from time to time and, in fact, most of the time, production facilities in excess of the demand. Perhaps the one thing, more than any other, that can contribute the most to the well-being of this industry is the intelligent handling of this reserve equipment.

Recent production statistics indicate that through the installation of new machines and the modernization of existing machines the industry is now provided with an annual reserve capacity in excess of one million tons above the levels of the first quarter production.

The growth of the paperboard industry during the past 12 years has been exceedingly rapid. Production of this commodity has increased from 4,938,500 tons in 1938 to a total of over 9,000,000 tons in 1947 and 1949, and over 9,500,000 tons in 1948. During the early months of 1950 production again reached new all-time high levels and will, in my opinion, do so for the entire year.

Of one thing your association can be justifiably proud, and that is the quality and adequacy of its statistical data. The ever-increasing use by representative financial and business analysts of the data collected and distributed by your staff is a convincing recognition of their importance.

The Need for Development of New Uses

Among the many factors which make for growth and well-being of our industry, probably the most important is the development of new uses for paperboard. To this end, it should be the policy of every company and every individual to measure their success by

Submitted at Spring Meeting, of National Paperboard Assn., The Greenbrier, White Sulphur Springs, W. Va., April 24-25, 1950.

their contribution to this end. The greatest opportunity for individual achievement lies in this field. We must build into our products qualities which will increase their adaptability to new uses, both structurally and artistically, and sell them at prices that our customers can and are willing to pay.

I am firmly convinced that improvement in product brings with it pride in product, which is the heart of good merchandising, for it is especially true that you cannot create in the minds of your customers a recognition of the quality and usefulness of what you have to sell if you, yourself, do not believe it to be true.

There are many companies, and several groups in the industry, diligently working on technical and development problems. To these I want to extend my commendation. It is my hope that such activities will be substantially extended, for success in these endeavors will bring direct success to those concerned and general benefits to the entire industry.

The essence of good business, it seems to me, is to make available at a reasonable price a product that possesses such usefulness and inherent quality that it enjoys an ever-increasing demand. I am sure that is the purpose of each one of us. However, the material benefits to be derived from this accomplishment can be partially or totally lost by careless and not well considered merchandising. Have pride in what you have produced and protect its value by the price you put on your accomplishment! Be willing to fight for the merits of your product rather than attempt to create an urge to buy through price inducements alone!

Moreover, if we are to be sound and healthy, we as individuals must continuously strive to reduce our costs wherever possible at the same time we improve our merchandising policies. We must pay more and more attention to costs. Increased cost of labor, transportation, material and supplies has a way of pyramiding, the result being lower and lower margins and reduced or disappearing profits.

The Effect of the Recurring Strikes in the Coal Industry

It seems that in every year we as manufacturers have to face a coal problem. This year the scheming of union leadership in the coal industry again made difficulties for many of our members and for most of our customers, our suppliers, and for those who render to the industry necessary services. This, of course, is troublesome and unfortunate.

There are, however, some aspects of these maneuvers and the resulting penalties on the coal industry itself which, to my mind, are more important than the immediate direct results of the disturbances themselves. There seem to be definite indications that the cost of producing and shipping coal has now reached such high levels that the coal industry is pricing itself out of what that industry for years regarded as its perpetual market. In substantiation of this, I want to call your attention to the following figures released in March 1950 by the Industrial Conference Board. I quote:

"Production of coal almost tripled from 1899 to 1947, its peak year. There was a substantial decline from 1947 to 1949, due in part to strike interruptions.

"Coal accounted for 38.9 per cent of the total energy equivalent of fuel and water power output in 1949, against 50 per cent in 1947 and 89.1 per cent in 1899.

"Competing fuels have won growing shares of the total.

"Petroleum rose from 4.5 per cent in 1899 to 37.1 per cent in 1949; natural gas from 3.2 per cent to 19.2 per cent; water power from 3.2 per cent to 4.8 per cent."

I submit that what is happening to the coal industry can happen to any other industry, whose increased costs soar above economic levels. We in the paperboard industry must be ever on the alert if our industry is to continue in a sound condition.

The Pension Question

There is another matter on which I would like to make a few comments and that is in respect to the thinking on security, which is sweeping the country. I cannot disagree with the foresight which looks toward provision for financial security for the years when a person's productive days are over. I also cannot disavow some social and industrial responsibility towards assisting the worker who has been unable to attain his own security because of the limitations placed upon his opportunity by our modern industrialism, but I do disagree with the relative emphasis now placed upon it and in the means now used to attain it.

For the person who has an opportunity to build his own security, its provision should be his own private responsibility. When in this country we have arrived at a point where young people value the security of a position above the opportunity it offers, it is, in my opinion, time to call a halt.

Raw Materials

Now as to raw materials, on which there will be individual reports later in the meeting: Unlike the situation which prevailed during the war years, our principal raw materials have been in good supply during the past 15 months when the quantities of pulp, pulpwood and waste paper have been ample at all times and in over-supply at certain times.

The U. S. Department of Commerce, in its Pulp, Paper and Board Annual Review, February 1950, gives a very accurate summarization of the waste paper situation in 1949, in the following language:

"Domestic use of waste paper for the manufacture of paper and board in 1949 reached a total of 6½ million tons. Although this substantial volume was well above normal consumption levels for the pre-war and early war periods, it does represent an appreciable decline from the extraordinary waste paper requirements of the late war years and those of the immediate post-war era."

* * *

"The market situation, uncomfortable as it was for many dealers, with warehouses stored to capacity with unwanted stocks, was further aggravated by influences causing a drop in waste paper consumption. Among these were a decline in folding box production and a trend away from the waste paper consuming "jute" liner board toward the higher quality kraft board using, for the most part, virgin wood pulp. An increasing use of defibrated pulp also made inroads into waste paper consumption. The changing economic relationship between wood pulp and waste paper usage is clearly manifest in data covering the past two years. In 1948, wood pulp represented 59 per cent of all fibrous material consumed in paper and board manufacture, while waste paper represented 35 percent. In 1949, wood pulp was 64 percent and waste paper had dropped to 31 per cent of the total."

Resumé of Present Situation and the Outlook for the Future

In ending my report I want to leave with you these general thoughts:

1. That we have just finished the first quarter of 1950 with an all-time high record of production, not only for a first quarter, but for any quarter of any past year:

2. That we have in prospect a year of the greatest production that the industry has ever experienced:

3. That we are not overburdened with inventories, either in our hands or in the hands of our customers:

4. That there is a plentiful supply of all required raw materials:

5. That the industry has ample capacity to service properly all seasonal fluctuations in demand:

6. That our costs are high—and still tending higher:

How well you as individuals, and as an industry, fare under these generally favorable conditions depends on the thoughtful intelligence which you exercise in the conduct of your individual businesses.

To the Men and Women of S. D. Warren Company:

You and I and all the others in the Warren Company are facing a very real problem—and because it is a problem that may well develop into a highly dangerous situation, I want to tell you a bit about it.

This fall the State Department of our federal government is holding a meeting in England to reduce the tariff rates on certain foreign products that are imported into this country. The theory is that if we make it easier for foreign producers to sell in this country we shall "adjust the balance of trade" and "close the dollar gap"—and thereby promote recovery in Europe.

Our kind of paper—Book Paper—is on the list of items that are to be cut in tariff rate. If tariff rates on our kind of paper *are* cut (and they are very likely to be unless we do something about it), then it will become easier for foreign paper makers to sell their printing papers in the United States.

Now, as a practical matter, this won't help Europe at all — because Europe needs all of the paper that it can produce with its limited supplies of wood, and it won't have any paper left to send over to this country.

But it will greatly help Canada. Canada has plenty of wood. Canada's wage rates in the paper industry are about 20 per cent *Less Than Ours.* Canada has devalued the Canadian dollar so that if a Canadian producer sells for 90c in this country, he gets a full Canadian dollar in return in his country.

If you put all these together—low wages, devalued Canadian dollar, and plenty of wood supplies—you see we have a *very real threat* across the border.

Some of you may remember that all tariff was removed from newsprint in 1913. That move killed the American newsprint industry so that today only five or six mills make newsprint in this country. Over 80 per cent of the newsprint that is used in the United States is now made in Canada!

The same thing could happen to Book Paper. Our customers would stop buying from us because they could get similar grades made in Canada at a lower price.

Of course, the State Department and E.C.A. and the others that are trying to build up Europe say that American industries can shut down—and that perhaps unemployment relief will be forthcoming. But unemployment relief is a poor substitute for wages.

Moreover, you may be certain that Canada is not lowering *her* tariffs. The Canadian tariff is so high today that we can't ship paper *there.* But our State Department wants to make our tariff so low that Canada can ship paper *here.* They call them "Reciprocal Agreements"—but it's a one-way street and there is no reciprocity whatsoever.

You can see how dangerous this is. If there were a tariff reduction, Canada—with lower wage rates—could gradually take over the United States book paper market, as it did the newsprint market. In that case, you and I are going to have a tougher and tougher time.

I don't like this and I assume you don't either. It's all unnecessary because it won't help Europe; it will help Canada (who doesn't need the help) and *it will hurt us badly.*

I'm appearing before the "Reciprocity Committee" in Washington for the whole Paper Industry the early part of June, but frankly I doubt if my arguing (and the arguing of others) does much good.

More good would come, I think, if a good many of you wrote your Senators and Congressmen in Washington and told them how *you* felt about this.

Lord knows, we don't want Westbrook and Gardiner to become "ghost towns." Let's tell the lawmakers how we feel!

This is a pretty complicated subject and I've tried to simplify it as best I could. But if I've missed something—or if this isn't clear—drop me a line or ask Everett Ingalls.

In any event, I wanted you to know what we were facing—and the importance of it to all of us.

Sincerely,
GEORGE OLMSTED, JR.
President.

May 26, 1950.

C.P.P.A. BOARD MEETS AT VANCOUVER

VANCOUVER, B.C.—For the first time in the life of the Canadian Pulp and Paper Assn., forty-seven years, the executive board of the association convened a regular meeting at Vancouver, B. C., on May 10. All members of the board from east of the Rockies traveled upwards of 2,500 miles to be present. It is likely that henceforward, at least one meeting of the executive board will convene in Vancouver annually. The meeting was under the chairmanship of Harold S. Foley.

Following the executive board meeting of the Canadian Pulp and Paper Assn., the Western Branch of the association gave a reception for the visiting members and friends. The host, Paul E. Cooper, pictured, (second from left) chairman, Western Branch, was with (extreme left) the Hon. C. D. Howe, Minister of Trade and Commerce, Ottawa, and (right to left) D. W. Ambridge, president and general manager, Abitibi Power & Paper Co., Ltd., and the Hon. J. H. Cates, Minister of Labour, Province of British Columbia.

ASSOCIATIONS

Chose Officers At May LEPCA Meet

CLEVELAND, Ohio — Election of next year's officers was held at the May 19 meeting of the Lake Erie Papermaker's and Converter's Assn. at the Hickory Grill in Cleveland. L. K. Burnett of Ohio Boxboard Co. will be chairman of the group again next year. Other officers re-elected are: W. O. Manor of Consolidated Paper Co., first vice-chairman; C. P. Spring of Chase Bag, second vice-chairman; and William Schoenberg of Lord and Schoenberg, secretary-treasurer. R. L. Leaf, Jr., of Ohio Boxboard Co., was elected to the newly created office of recording and corresponding secretary.

An all day party has been arranged for July 21 by the vendors in the group. It will feature trips through Chase Bag Co. and the Ohio Boxboard Co. in the morning, lunch at Brookside Country Club in Barberton, Ohio, and an afternoon of social activity including golf.

Southeastern P.T.A. Meeting

RICHMOND, Va. — Invitations have gone forward to guests to attend the 21st outing of the Southeastern Paper Trade Assn., June 22-24 at the Cavalier Hotel, Virginia Beach, Va.

A very full program has been arranged, including a men's golf tournament, ladies' golf tournament, cocktail party, dinner, banquet and dances. There will be an innovation in the golf tournament this year—the tournament will be played on Thursday at the Cavalier Golf and Country Club, recently the scene of the Cavalier's Specialist Tournament, and on the second day will be played over the Princess Anne Golf Course. The tournament is handicapped and prizes are numerous so that expert and duffer alike have equal chances to win.

The cocktail party is scheduled for Thursday night at 5 o'clock at the hotel, followed by a dinner at 7. After dinner there will be dancing under the stars at the Cavalier Beach Club with music supplied by Johnnie Long and his orchestra. The annual banquet will be held Friday night.

Patent Abstracts

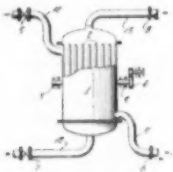
● In addition to abstracts on the technology of pulp, paper and related industries, miscellaneous abstracts which may provide useful information are included.

United States

2,507,827 — Filtering Material. Earl Stafford, North Reading, and Horace N. Lee, Melrose, Mass., assignors to Arthur D. Little, Inc., Cambridge, Mass. Filed January 27, 1944—Issued May 16, 1950.

A fibrous structure adapted to filter solid and liquid particles from gases and vapors, consisting of a water-laid, interfelted fiborus sheet and a backing therefor attached thereto by means of an adhesive, said sheet consisting of a substantially uncompacted and homogenous mixture of mineral fibers, short organic fibers and long organic fibers, the relative weight ratios between said short and said long fibers being between 70 to 30 respectively and 98 to 2 respectively, said organic fibers being substantially unhydrated, substantially all of said short fibers being less than about 3 millimeters in length and substantially all of said long fibers being greater than 5 milimeters in length, said mineral fibers being present in an amount equal to between about 2% and about 40% of the total fiber content, substantially all of said mineral fibers having diameters of less than about 3 microns, said backing consisting of an open-mesh textile fabric, said sheet and said backing being united by means of said adhesive, said structure having substantially the same degree of permeability as that of the sheet component thereof alone.

2,508,013 — Preparation of Secondary Cellulose Esters. William James Burke, Marshallton, Del., assignor to E. I. du Pont de Nemours & Company, Wilmington, Del. Filed July 26, 1946—Issued May 16, 1950.



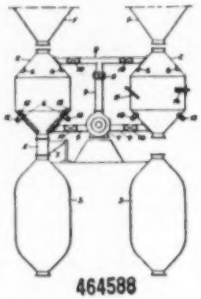
A process for preparing an acetone-soluble cellulose acetate propionate which comprises heterogeneously hydrolyzing a fibrous primary cellulose acetate propionate by heating said primary ester in aqueous 2% to 10% sulfuric acid at a temperature of from 20° C. to 80° C., said primary ester containing from 2% to 7% combined propionic acid and from 0.3% to 0.8% combined sulfuric acid; continuing said heating until an acetone-soluble, fibrous cellulose acetate propionate is obtained containing from 0.2 to 0.8 free hydroxyl groups per glucose unit; removing thereupon said acetone-soluble ester; and treating it with super-heated steam until it is essentially free of combined sulfate.

2,508,119 — Method of Operating Heat Exchangers. Carl Johan Lockman, Enebyberg, Sweden, assignor, by mesne assignments, to Rosenblad Corporation, New York, N. Y. Filed May 12, 1945—Issued May 16, 1950.

A method of operating heat exchangers with two separate channel systems in heat exchange relation, comprising the steps of passing an encrustation depositing fluid through one channel system, passing a vaporous fluid which forms a scale removing condensate through the other channel system from the top to the bottom end thereof, alternating the channel systems through which each fluid flows, and turning over the heat exchanger at suitable intervals so as to cause its top and bottom portions to change places, said vaporous fluid being after such a turning over operating entered into either channel system at its top end which constituted its bottom end before said turning operation.

Canadian

464,588—Process in the Manufacture of Cellulose from Wood Chips. Karl Yrjö Kylander, Helsingfors, Finland. Filed November 26, 1945—Issued April 25, 1950.



464588

A process in the manufacture of cellulose consisting in previously treating the chips with a solution containing acetone and acetate or pyroligneic acid thus impregnating the chips with the solution and then subjecting the chips to a dissolving digestion for the purpose of obtaining cellulose.

In a process according to claim 1, particularly for terating pine chips for sulphite digestion, first treating the chips with sulphur dioxide gas or sulphur dioxide solution and then impregnating them with the acetone-containing solution.

A process in the manufacture of cellulose consisting in previously treating the chips with a solution of compositions containing pyrolignic acid, methyl alcohol and acetone, said compositions being obtained from dry distillation products of wood and free from tar, thus impregnating the chips wit hthe solution and then subjecting the chips to a dissolving digestion for the purpose of obtaining cellulose.

In a process according to claim 1 soaking the chips with water before the preliminary treatment.

464,599 — Insulation Composition. Frederick G. Portz, Waukeska, Wisconsin, U.S.A. Filed May 13, 1946—Issued April 25, 1950.

An insulation composition consisting of an intimate dry mixture of disintegrated newsprint and boric acid in proportions by weight, of approximately seventy-five per cent of the former and twenty-five per cent of the latter.

An insulation composition consisting of approximately twenty-five pounds of dry powdered boric acid mixed with seventy-five pounds of dry disintegrated newsprint.

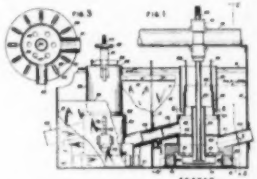
464,608 — Oil-Soluble Corrison Inhibitor. James E. Shields and Edward V. Reilly, Niagara Falls, New York, U.S.A., assignors to Alox Corporation, New York, New York, U.S.A. Filed June 7, 1943—Issued April 25, 1950.

Process of obtaining polar-type corrosion-inhibiting agents soluble in petroleum lubricating oils and insoluble in water from mixtures of oxygenated saturated preslominately aliphatic hydrocarbons derived from a petroleum fraction by the liquid-phase partial exidation of the latter, which comprises extracting such mixture with an amount by weight of concentrated sulphuric acid at least equal to that of the oxygenated hydrocarbons content of said mixture while maintaining the temperature of the resulting reaction mixture at an elevated temperature not exceeding 125° C., and separating sulphuric acid from the resulting sulphuric acid extract.

464,913 — Resistant Coating. Donald Robert Erickson, Kalamazoo, Michigan, U.S.A. Filed March 10, 1947—Issued May 9, 1950.

The method of producing paper impervious to oil, grease, organic solvents, aromatic odors and gases comprising completely covering the face of a paper base with a continuous viscose coating consisting essentially of hydroxy ethyl cellulose insoluble in water but soluble in aqueous sodium hydroxide dissolved in a water solution of sodium hydroxide and immediately forming a continuous film of said hydroxy ethyl cellulose on and fixed to the surface of and completely covering said paper base by immediately eliminating the sodium hydroxide from the solution by ion interchange and thereby precipitating said hydroxy ethyl cellulose from solution by subjecting said viscous coating immediately to contact with a water solution of an ammonium salt to effect an ion interchange between the sodium hydroxide and the ammonium salt.

464,915—Flotation Machine. Arthur W. Fahrewald, Moscow, Idaho, U.S.A. Filed July 17, 1946 — Issued May 9, 1950.



464915

A flotation machine, comprising, a tank having pulp inlet and outlet openings and a froth overflow lip, an impeller rotatable in the lower portion of the tank, an air tube rising axially above said impeller for delivering air to the hub of the impeller, radial deflectors surrounding said impeller, a pulp feed chamber above said impeller surrounding the lower end of the air tube and having outlets for delivering pulp to the impeller radially outward from and independently of the air supply thereto, means for conveying incoming pulp from the tank inlet to the feed chamber, a pulp accumulator cup above said feed chamber and around the air tube, the upper edge of the accumulator cup defining the pulp level in said tank, a baffle surrounding said lip from a point therebelow and extending above the froth formed on the pulp in the tank, means for conducting pulp accumulated in said cup to exterior of the tank through the pulp outlet, a settling chamber in said tank and having its open mouth below the pulp level and under the froth just prior to its passage to the froth overflow lip of the tank, and means for conveying pulp from said settling chamber to the pulp chamber.

SUPPLIERS

Allied Chemical & Dye Corp. dedicated a new $1 million research and technical service laboratory at its Solvay Process division plant in Syracuse on May 25.

The laboratory will be used for research in alkali chemistry. It will serve all the manufacturing plants of the alkali section of Solvay, located at Syracuse, Detroit and at Baton Rouge, La.

The new laboratory is part of a $20 million building and modernization program under way at the Syracuse Solvay plant.

Allis-Chalmers general machinery division has appointed three new district office managers, effective July 1. They are J. H. Burrus, manager of the Milwaukee district; U. E. Sandelin, Portland district, and Stephen C. Bacon, Seattle district.

Mr. Burrus, since 1949 manager of the Portland district, succeeds H. A. Balding, who is retiring from active management of the Milwaukee district after being associated with Allis-Chalmers since 1902. For several months after July 1, Balding will act as consultant and adviser to the Milwaukee district manager. Mr. Burrus has been with Allis-Chalmers since 1937.

Mr. Sandelin has been manager of the Seattle district since 1945. He has been employed by Allis-Chalmers since 1929.

Mr. Bacon has been associated with the Seattle office since 1938. He has been with Allis-Chalmers since 1931.

R. S. Aries & Associates, consulting chemical engineers, have moved their executive offices to 400 Madison Avenue, New York 17, N. Y., from 26 Court Street, Brooklyn, N. Y. The general engineering offices and drafting rooms will remain at the old address.

GUEST ELECTS OFFICERS

GREENSBORO, N. C. — C. M. Guest & Sons, Construction Engineers, announced that three vice-presidents have been elected by its board. The new officers are Curtis L. Laughlin and Russell A. McCoy, Jr., both of its Greensboro, N. C. office and Charles W. Jones of its Anderson, South Carolina office.

SWENSON'S M. M. COSTON TO PHILADELPHIA

In order to better serve the process industries in the Philadelphia area, the Swenson Evaporator Co. has added M. M. Coston to the Philadelphia sales staff located at #9 Rittenhouse Place, Ardmore, Pa. . . . In his new position Mr. Coston will devote his full time to serving the process industries in eastern Pennsylvania, southern New Jersey, Delaware and Maryland.

HALL LABS. NAME KAUFMAN

Hall Laboratories, Inc., Pittsburgh, has named Charles E. Kaufman, assistant director of research as director of research . . . He succeeds Dr. Everett P. Partridge, whose appointment as director of Hall Laboratories was announced recently by D. J. Erikson, president of Hall's parent firm, Hagan Corp. As head of research at Hall Laboratories he will be responsible for development of processes and materials relating to industrial and municipal water conditioning.

American Car & Foundry Co. has appointed Edmund A. Watson general improvement engineer, effective June 1, 1950. He succeeds John W. Sheffer who is retiring after 42 years' service with ACF.

Arabol Manufacturing Co., New York, adhesives manufacturers, announces the opening of a factory in Atlanta, Ga. — to be located at 225 Moore street, S.E. This new plant is Number 6 on Arabol's current expansion program. Frank J. Michael, who has served this territory for several years, will be in charge of sales of the newly created Southeastern Division.

Columbia Chemical Div., Pittsburgh Plate Glass Co. has announced the appointment of Thomas C. Hardwick as sales representative at Charlotte, N. C.

Mr. Hardwick joined Columbia in 1946 as assistant to the manager of calcium hypochlorite sales at the firm's Pittsburgh headquarters. He has been associated with the Charlotte office since January, 1950.

Dozier-Graham-Eastman, industrial advertising agency celebrated its 25th anniversary in May, making it not only one of the largest but also one of the oldest advertising agencies in the West. It is one of the few agencies in the nation having a licensed and registered engineer on its staff to insure technical copy measuring up to the high standards of the engineering profession. The accounts served include companies that serve such diversified industries as water and sewage treatment, chemical and food processing, engineering and construction, power plants, oil well drilling, producing and refining, paper and pulp mills, machine tool industries, electronics, aviation equipment, mining and smelting, leading agricultural service companies and a wide range of other industries.

F. H. McGraw & Co., engineers and constructors, announces that its Canadian subsidiary, F. H. McGraw Co. of Canada, Ltd., established in 1940 and now operating from 1520 Mountain street, Montreal, is actively engaged in construction operations in Canada and is prepared to consult on any proposed projects in the Dominion.

Nopco Chemical Co. reports that in a ceremony at the Harrison, N. J., home office and plant, 11 new members, representing the "Class of '50," have joined the NOPCO 15-Year Club.

The "induction," an annual ceremony attended by all employees who have been with the firm 15 years or longer, marked the 11th anniversary of the group, which now boasts 155 members ranging from 15 to 43 years service, or 22 per cent of all personnel.

Highlight of the meeting was the presentation of gold watches, emblematic of 25 years service, to Michael Mischak and Charles Hargrove, and a jet crystal desk set to Dr. Chas. I. Post, Asst. Vice-President, for the anniversary.

Charles P. Gulick, founder of the business, tops the list of Club members, having reached the 43rd milestone. G. Daniel Davis, Vice-President, ranks second among the officers in point of service (34 years), followed by Albert A. Vetter, Secretary (31 years).

Russell Mfg. Co. has announced that John C. McLeod has been appointed manager of Rusco belting sales, Chicago branch.

FAIRBANKS-MORSE PURCHASING AGENT

Donald L. Harwood has been appointed purchasing agent of Fairbanks, Morse & Co., Chicago . . . Mr. Harwood began his one-company business career by joining the Fairbanks, Morse & Co. Three Rivers' plant at Three Rivers, Michigan, in 1926. He was transferred in 1931 to the company's Beloit, Wisconsin, Works, and while there served in the Purchased Stores and Production departments. In 1935 he was moved to the purchasing department of the Chicago headquarters' office as materials expediter. Sometime later he was made Assistant Purchasing Agent of the company, which position he held until his recent promotion on May 1 . . . "Don" as he is known by his many friends in the Chicago Association of Purchasing Agents, has taken an active part in the association's work since 1946, serving on the N.A.P.A. Steel Committee whose records are published weekly.

FINANCIAL RECORD

PREFERRED STOCKS	Per Share Earnings: Calendar Year 1949	Per Share Earnings: 12 Mo. to Approx. 3/31/50	Indic. Annual Divid. Rate	June 6 Approx. Market Price
Armstrong Corp Co. $3.75 Cum.	$40.95*	$ —	$3.75	$103⅜
Armstrong Cork Co. $4.00 Cum. Conv.	40.95*	—	4.00	117¼
Celotex Corp. 5% Cum.	6.89c	—	1.00	16¼
Champion Paper & Fibre $4.50 Cum.	60.09f	—	4.50	105
Container Corp. of Amer. 4% Cum.	89.52	$92.76	4.00	105½
Crown Zellerbach $4.20 Cum.	54.38c	—	4.20	104⅝
Dixie Cup Co. $2.50 Cum. Conv. Cl. A	10.93	11.41	2.50	57¼
Flintkote Co. $4 Cum.	62.70	65.47	4.00	105
Robert Gair Co., Inc. 6% Cum.	11.48	8.49	1.20	18¼
International Paper Co. $4 Cum.	224.55	235.34	4.00	109
Kimberly Clark Corp. 4½% Cum.	85.27	99.12	4.50	107¼
Kimberly Clark Corp. 4% Cum. Conv. 2nd	50.65*	58.80	4.00	149½
MacAndrews & Forbes 6% Cum.	61.59	61.09	6.00	141
Mead Corp. 4¼% Cum.	51.37	53.61e	4.25	89¾
Mead Corp. 4% Cum. Conv. 2nd	21.35*	22.62*e	2.00	43
Paraffine Cos. Inc. 4% Cum. Conv.	56.46	47.70	4.00	99⅞
Rayonier Inc. $2 Cum.	9.54	10.03	2.00	34½
St. Regis Paper Co. 4.40% 1st A	30.74	30.19	4.40	86¾
Scott Paper Co. $3.40 Cum.	51.15*	56.23*	3.40	98⅛
Scott Paper Co. $4.00 Cum.	51.15*	56.23*	4.00	108⅝
Sutherland Paper 4½% Conv.	46.92	50.62	4.25	109¾
U. S. Gypsum Co. 7% Cum.	283.37	300.73	7.00	184⅞
United Wallpaper Inc. 4% Cum. Conv.	2.14	(d)8.00	2.00	24⅞
West Virginia Pulp & Paper 4½% Cum.	61.28c	—	4.50	110½
COMMON STOCKS				
APW Products Co.	(d)0.81	(d)0.58	—	4¼
American Writing Paper Corp.	.04	$0.15	—	7
Armstrong Cork Co.	6.57	—	$3.00	51⅜
Celotex Corp.	1.65c	—	1.00	18⅝
Certain-Teed Prods. Corp.	2.84	3.00	1.00	17⅝
Champion Paper & Fibre	5.15f	—	2.00	38¼
Congoleum Nairn Co.	3.04	—	2.00	28⅝
Container Corp. of America	8.46	8.77	4.00	48⅞
Crown-Zellerbach	6.02c	—	2.00	35⅛
Dixie Cup Co.	7.44	7.85	1.50	43½
Eastern Corp.	0.04	0.87	—	15⅜
Flintkote Co.	4.33	5.52	2.50	30⅝
Robert Gair Co., Inc.	1.31†	1.22†	0.70	8⅜
Great Northern Paper Co.	4.87	4.19	2.80	40½
International Paper Co.	7.12	7.47	2.50	44½
Johns-Manville Corp.	4.83	5.15	2.50	49¾
Kimberly Clark Corp.	5.29	6.19	1.80	37⅛
MacAndrews & Forbes Co.	3.64	3.61	3.00	40½
Marathon Corp.	3.29c	3.56g	1.40	29⅝
Mead Corp.	4.10	4.28e	1.60	21⅜
National Container Corp.	0.95	1.08	0.60	8¼
Paraffine Cos. Inc.	0.85	0.71	0.60	16½
Rayonier, Inc.	4.75	5.06	2.00	30¾
Ruberoid Co.	8.72	9.44	3.25	60⅛
St. Regis Paper Co.	0.91	0.87	0.60	8⅞
Scott Paper Co.	6.07	6.65	3.60	91½
Sutherland Paper Co.	4.62	4.88	2.50	39¾
Union Bag & Paper Corp.	5.01	5.12	2.25	30⅜
United Board & Carton	(d)1.61b	(d)0.84g	—	9⅝
U. S. Gypsum Co.	13.51	14.35	9.00	130½
United Wallpaper	(d)0.01	(d)0.32	—	3¼
West Virginia Pulp & Paper	8.58c	9.37g	3.00	53

(a) 12 months to approximately 2/4/50
(b) Year ended 11/13/49
(c) Year ended 1/31/50
(d) Deficit
(e) 12 months to 3/19/50
(f) 9 months to 12/31/49
(g) 12 months to approximately 4/30/50
(*) Earnings per combined preferred shares.
(†) Not including full earnings of Gair Co., Ltd. nor 60% interest of Robert Gair Co., Inc. in Southern Paperboard Corp.

Earnings of Swedish Mills

Swedish Cellulose Company, Sundsvall, Sweden's largest forestry concern, reports a net profit of 7.69 million kronor, as compared with 7.41 millions for 1948. The dividend is 7 per cent. Net earnings of the company including its subsidiaries showed a slight reduction, or from 12.3 to 11.6 millions. Total shipments decreased in value from 305 to 288 million kronor. The aggregate production capacity of the mills belonging to the Swedish Cellulose Co. group is: sulphite paper pulp, 240,000 tons; sulphate pulp, 210,000 tons; mechanical pulp, 90,000 tons; newsprint, 40,000 tons, and lumber, 85,000 standards. The capital stock of the Swedish Cellulose Co. itself is 50 million kronor, most of which has been held by Svenska Handelsbanken. Some time ago the bank decided to sell stock representing a par value of 37.5 millions to the general public and the bank's own stockholders, at 130 Kr. per share.

Mo & Domsjö Company, Örnsköldsvik, reports a net income of 2.5 million kronor, as compared with 4.0 millions for 1948. A dividend of 8 per cent, plus a 2 per cent bonus, or the same as last year, has been announced. Sales decreased in value from 145 to 118 million kronor. The company's production of cellulose was practically unchanged at about 180,000 tons. The output of chemicals is being increased, and the company is building a paper mill with a capacity of 10,000 tons.

Korsnäs Company, Gävle, big producer of cellulose and timber, reports net earnings of 2.65 million kronor, or about the same as for 1948. The dividend remains unchanged at 5 per cent. Production of cellulose was cut by 12,000 tons to about 80,000, which, however, was due to a stoppage caused by fire.

Billerud Company, Säffle, cellulose and paper producers with rayon pulp as a specialty, report net income was 7.9 million kronor, as compared with 8.2 millions for 1948. The dividend is 7 per cent. Sales decreased in value from 106 to 101 millions. Of cellulose, the company last year produced 143,000 tons, of which 65,000 were used by its own paper mills. The output of paper amounted to 56,000 tons.

Holmen Company, big producers of newsprint and textiles, increased its net income from 3.8 to 4.5 millions, with the dividend unchanged at 8 per cent. The company produced more paper than ever before, or 176,000 tons, including about 150,000 tons of newsprint, of which approximately 100,000 tons was exported. Holmen is Sweden's leading producer of newsprint. Sales last year totaled about 134 million kronor, or about 5 millions more than in 1948. This improvement was due to a rise in the value of textile shipments.

Note: Average value 1949 Krona $0.25.
Business News Letter, American Swedish News Agency.

Abitibi Power & Paper Co. has purchased an additional 27,080 shares of its $1.50 preferred stock to leave a balance of 1,241,116 preferred shares outstanding at April 25, 1950.

Mersey Paper Co., Ltd., has declared a dividend of $1 per share on common stock, payable July 2 to stockholders of record June 10.

Hinde & Dauch Paper Co. of Canada Ltd. has declared a dividend of 25c per share, payable June 3 to stockholders of record May 31.

Consolidated Paper Corp., Ltd., voted a semi-annual dividend of 75 cents due July 17 to stockholders of record on June 5. The company previously paid 50 cents on January 17.

Great Lakes Paper Co., Ltd., has declared a dividend of 40 cents per share on common stock and 62½ cents on preferred, payable June 30 to stockholders of record June 9.

Union Bag & Paper Corp. on May 31 declared a regular quarterly dividend of 50 cents per share on the capital stock, payable June 15 to stockholders of record June 9.

PRICES

The prices below reflect general market quotations at the mill level on the standard grades in which the normal volume of business is being done. Does not include occasional spot offerings.

NEW YORK

Delivered Ports

Standard News, per ton—

Rolls, contract	$100.00/ —
Sheets	115.00/ —

F.o.b. Mills. Carload freight allowed, dock N. Y.

Kraft— per cwt., 40# base wgt.

Standard Wrapping Rolls	$6.50/ —
No. 1 Wrapping Rolls	7.25/ —
Standard Bag	6.25/ —

Tissues—per ream 24x36 (480) 10 lbs. 2500 lbs. or more

Wh. No. 1 Frd.	$1.40 / 1.55
Wh. No. 1 MG	1.40 /
Wh. No. 1½	1.30 / 1.35
Wh. No. 2	1.15 / 1.20
Kraft Non-Tar	1.25 /
White Non-Tar	1.52½/

Toilet— per case of 100 rolls—1 M sheets.

Unbleached 4½x4½	$5.75/ —
Bleached 4½x4½	6.95/ —
Bleached 4½x5	8.80/ —

Per Case of 50 rolls—2000 sheets

Unbleached 4½x4½	$5.75/ —
Bleached 4½x4½	6.80/ —

Per Case of 100 rolls—1000 sheets

Facial, 4½ x 5, 2 ply	$8.95/$9.45

Paper Towels—per case of 3750.

Wh. Jr. M'tif'd 9¼x9½	$5.25
Br. Sr. M'tif'l 10x12	3.60
Br. Jr. M'tif'd 9½x9¾	3.10
Br. Jr. Sgl. fold 10x10¾	3.15
Blchd. 7½ x 11, 24/25 rolls	$3.95/$6.25

Manila, per cwt.

No. 1 Jute Tag sheets*	$15.05/$17.50
Reg. Jute M.F. 40-lb., sheets*	13.50/ 15.50
Wrapping Manila	8.75/ 10.50
Printing Manila	10.00/ 11.00

* Less usual allowance for rolls.

Gummed Tape—per bdl., 500 bdls. or more.

60-lb. 600 ft. GSI	$ 5.25/$ 5.40
35-lb. 800 ft. GSI	6.05
35-lb. 500 ft. GSI	4.66
35-lb. 500 ft. GSO	4.53

WORLD WOOD PULP MARKETS

Second Quarter Contract Price, Per Short Air-Dry Ton

	Delivered, with varying freight allowance		Full freight allowance‡ On dock Atlantic Ports			
	U. S.	Canadian	Swedish	Finnish	Norwegian	
Groundwood	$65.00/ —	$65.00/ —	$60.00/ 62.50*			
Siderums Pulping News	65.00/ —	65.00/ —				
Soda, Bleached	115.00/ —	115.00/ —				
Sulphate, Bleached	118.00/126.00	126.00/ —	125.00/128.00*			Competitive
Sulphate, Unbl'd North'n		82.50/105.00	85.00/ —	85.00/ —		
Sulphate, Unbl'd South'n	82.50 /85.00					
Sulphite Blchd. (S'ftw'd)	118.00/123.00	118.00/ —	118.00/124.00	115.00/ —	*	Competitive
Sulphite, Blchd. (H'dw'd)	118.00/ —					
Sulphite, Unbleached	100.00/ —	100.00/ —	100.00/105.00	100.00/ —		
Sulphite, Unbl'd (Glassine)	105.00/ —	103.00/ —	104.00/105.00			

* On dock. ‡ Ex dock quotations average $5.00 lower.

Third Quarter Indications, Per Short Air-Dry Ton

Sulphate, Bleached	$	$135.00/ —	130.00/135.00*	
Sulphate, Unbl. Northn.		82.50/ —		
Sulphate, Unbl. Southn.				
Sulphite, Blchd. (Sftwd.)		125.00/ —	125.00/ — *	
Sulphite, Unblchd.		107.00/ —		
Soda, Blchd.	122.00/ —	122.00/ —		

* On dock.

Boards, per ton—*

Filled News	$67.50/$72.50
Plain Chip	65.00/ 70.00
Plchd. Mla, L-d. Chip	97.50/ —
White Pat. coated	110.00/115.00
Kraft Liners 42 lb.	100.00/
Kraft Corr. 009	105.00/
Binders Boards	110.00/116.00

* Base Prices per 10 tons. Less than 10 tonbut over 3 tons, add $2.50; three tons or less, add $5.

The following prices are representative distributors' resale prices:

Rag Content Bonds and Ledgers—
White, 20 lb.

Bonds	4 Ctns.
	per cwt.
100% Rag Ex. No. 1	$54.45/ $5.55
100% Rag	47.05/ 47.55
75% Rag	35.15/ 36.80
50% Rag	29.40/ 30.35
25% Rag	25.75/ 26.75

Ledgers	4 Ctns.
	per cwt.
100% Rag Ex. No. 1	$55.70/$57.60
100% Rag	48.30/ 48.90
75% Rag	37.65/ 38.05
50% Rag	30.70/ 31.70
25% Rag	27.15/ 28.05

Sulphite Bonds and Ledgers
White, 20 lb.

Bonds	4 Ctns.
	per cwt.
Watermarked	$16.75/$17.70
Plain	15.60/ 16.10

Ledgers	4 Ctns.
	per cwt.
Watermarked	$18.20/ 19.00
Plain	17.25/ 17.30

White Book

Conversion Coated	Case
	per cwt.
No. 1	$19.75/$21.15
No. 2	19.25/ 19.90
No. 3	17.75/ 19.15
Machine Coated	
No. 1	16.40/ 16.65
No. 2	14.40/ 15.15
Uncoated	
No. 1 Antique (Watermarked)	16.40/ 17.90
Offset	13.15/ 16.65
A Grade E. F.	13.50/ 15.65
A Grade S. C.	13.90/ 14.15
B Grade E. F.	14.90/ 15.15
B Grade S. C.	13.40/ 15.65

‡ Indicates a price change.

WASTE PAPER MARKET

The following quotations were gathered from major dealers in each market. They are an indication of the price range in which volume tonnage was moving on the date specified. Spot offerings or special packings are not necessarily included. Prices to mills, per ton, f.o.b. cars shipping point (includes brokers' fee.)

	New York June 5	Philadelphia May 22	Boston May 18	Chicago June 2
No. 1 Mixed Paper	7.00/ 9.00	8.00/ 9.00	6.50/ 7.00	$10.00/ —
Boxboard Cuts	8.00/ 9.00	7.00/ 8.00	7.00/ 9.00	13.00/ —
Mill Wrappers	10.00/ 11.00	10.00/ 13.00	8.50/ 10.00	12.00/ —
No. 1 News	9.00/ 11.00	8.00/ 10.00	8.50/ 10.50	14.00/ —
Over-issue News	13.00/ 14.00	13.00/ 15.00	12.00/ 14.00	17.00/ —
Corrugated Containers	18.00/ 20.00	16.00/ 17.50	14.50/ 16.50	18.00/ —
New Corrugated Cuts	20.00/ 21.00	20.00/ 21.00	15.00/ 18.00	22.00/ —
Double Kraft Ld. Corr. Cuts	35.00/ 37.00	32.50/ 34.50	36.50/ 40.00	42.00/ —*
Used Kraft Bags	30.00/ 34.00	25.00/ 30.00	25.00/ 30.00	25.00/ —
No. 1 Brown Kraft Paper	32.00/ 35.00	28.00/ 32.00	25.00/ 35.00	25.00/ —
Super Resorted Br. Kraft	37.50/ 40.00	35.00/ 40.00	35.00/ 40.00	35.00/ —
New Br. Kraft Env. Cuts	70.00/ 75.00	60.00/ 65.00	65.00/ 70.00	65.00/ —
New Br. Kraft Cuts	55.00/ 60.00	45.00/ 50.00	50.00/ 55.00	60.00/ —
No. 1 Gdwd. Shvs.	25.00/ 30.00	25.00/ 30.00	30.00/ 35.00	22.00/ —
White Newsblanks	55.00/ 60.00	55.00/ 60.00	50.00/ 60.00	50.00/ —
No. 1 Flyleaf Shvs.	27.50/ 30.00	28.00/ 32.00	40.00/ 50.00	35.00/ —
No. 1 Soft Wht. Shvs.	65.00/ 70.00	65.00/ 75.00	65.00/ 70.00	65.00/ —
Super Soft Wht. Shvs.	90.00/ 95.00	80.00/ 85.00	85.00/ 95.00	75.00/ —
Hd. Wht. Shvs.	85.00/ 90.00	85.00/ 95.00	85.00/100.00	80.00/ —
Hd. Wht. Env. Cuts	100.00/110.00	95.00/110.00	100.00/110.00	95.00/ —
New Manila Env. Cuts	65.00/ 70.00	60.00/ 65.00	60.00/ 70.00	55.00/ —
Col. Tab Cards	40.00/ 42.50	35.00/ 40.00	35.00/ 45.00	37.00/ —
Manila Tab Cards	70.00/ 75.00	65.00/ 75.00	60.00/ 70.00	65.00/ —
No. 1 Mixed Ledger	30.00/ 32.50	30.00/ 32.50	33.00/ 37.50	37.00/ —
White Ledger	45.00/ 50.00	45.00/ 50.00	40.00/ 50.00	42.00/ —
Mixed Books & Mags.	13.00/ 15.00	12.00/ 13.00	12.00/ —	15.00/ —
No. 1 Rep'd Hvy. Books & Mags.	25.00/ 30.00	22.00/ 25.00	23.00/ 28.00	25.00/ —

* f.o.b. or delivered.

Rag Market

New Domestic Cotton Cuttings
(Prices to Dealers, F.o.b. Ship. Pt.)

	Per 100 lbs.
White Shirt	$10.50/ $11.25
Unbleached Muslin	10.50/ 11.25
Light Silesias	6.75/ 7.75
White Back Blue Overalls	6.00/ 6.50
Blue Overalls	4.50/ 5.00
Fancy Shirt	4.75/ 5.00
Percales	5.50/ 6.00
Light Prints	5.25/ 5.75
No. 1 Washables	2.50/ 2.75
Bleachable Khaki	4.50/ 5.00
Unbleachable Khaki	3.75/ 4.50
Cottonades	4.00/ 4.75
Lt. Flannelettes	6.75/ 7.50
Men's Corduroy	3.25/ 3.75
Women's Corduroy	2.75/ 3.25
Canton Flannels, Blchd.	8.75/ 9.25
Underwear Cutters, Blchd.	10.50/ 11.00
Underwear Cutters, Unblchd	10.25/ 10.50

Old Domestic Cotton Rags
(Prices to Dealers, F.o.b. Ship. Pt.)

	Per 100 lbs.	
No. 1 Whites, Repacked	$4.25/	$4.75
No. 1 Whites, Miscllancous	3.00/	3.50
No. 2 Whites, Repacked	3.00/	3.25
No. 2 Whites, Miscellaneous	2.75/	3.00
Cotton Pants & Overalls	2.25/	2.75
Thirds and Blues, Repacked	2.25/	2.50
No. 1 Roofing Rags	1.20/	1.30
No. 2 Roofing Rags	1.10/	1.20
No. 3 & 4 Roofing Rags	1.00/	1.10
Roofing Bagging	1.00/	1.10

New Foreign Cotton Cuttings
(Prices to Mills, F.o.b. Dock, N. Y.)

	Per 100 lbs.	
New Dark Cuttings	$2.75/	$3.00
New Mixed Cuttings	2.75/	3.00
Light Silesias	6.50/	7.00
Light Flannelettes	5.50/	6.00
New White Cuttings	10.00/	10.50
New Unbleached Cuttings	10.00/	10.50
Fancy Shirt Cuttings	4.50/	4.75
Light Prints	4.00/	4.25
Bleachable Khaki, No. 1	4.25/	4.50
Unbl. Khaki, No. 1	3.50/	4.00

Old Foreign Rags
(Prices to Mills, F.o.b. Dock, N. Y.)

	Per 100 lbs.	
No. 1 White Cottons	$6.50/	$7.00
No. 2 White Cottons	5.50/	6.00
No. 3 White Cottons	3.50/	4.00
No. 4 White Cottons	3.00/	3.50
Extra Light Prints	4.50/	5.00
Old Light Prints	4.00/	4.25
Med. Light Prints	2.50/	2.75
Dutch Blue Cottons	3.25/	3.50
Checks and Blues	2.75/	3.00
Linsey Garments	2.10/	2.40
Dark Cottons, European	2.00/	2.10
Dark Cottons, Egyptian	1.85/	2.00
Old Shopperies	1.75/	1.85
New Shopperies	2.00/	2.25

Bagging
(Prices to Dealers, f.o.b. N. Y.)

	Per 100 lbs.	
Foreign Gunny	$5.50/	6.00
Domestic Gunny, No. 1	5.50/	6.00
Heavy Wool Tares	6.00/	6.25
Foreign Manila Rope	4.00/	4.25
Domestic Manila Rope	5.00/	5.25
Jute Strings	5.50/	5.75
No. 1 Sisal Strings	3.00/	4.00
Mixed Strings	Nominal	
Paper Mill Tares	3.50/	4.00
No. 1 Scrap Burlap		
Foreign	4.00/	4.25
Domestic	4.75/	5.00
Austr. Wool Pouches	—/	6.00
New Burlap Cuttings	5.50/	6.00

MATERIALS

Aluminum, sulfate:
- coml. bags, wks. ..... cwt. 1.50
- iron-free 2.75

Alcohol, ethyl:
- tax free, dms. c.l. ..... gal. .45
- dcld. East Miss.

Casein, acid-prec.:
- dom. sh. pt. c.l. ..... lb. .23 / .24
- imp. ex-dock ..... lb. .20¾ / .21¾

Caustic soda:
- c.l. wks. solid, 76%, cwt. 3.05
- flak. & grd. 400-lb. drums 3.45
- 100-lb. drums 3.95
- liquid 50% tanks 2.40
- liquid 73% tanks 2.50

China clay:
- dom. air-float. filler, c.l. wks. ton 10.00
- water-washed 11.00
- coating ..... 16.30 /30.00
- imported, ex whse. ..short ton 15.20 /28.35

Chlorine:
- single-unit tanks, works ..cwt 2.40
- multi-unit ..... cwt. 2.90 / —
- 4.10 / —

Formaldehyde:
- USP, inh. dms. c.l. wks. ..... lb. .0570
- l.c.l. E. wks ..... .0620

Fuel oil:
- Bunker C, No. 6 Cal. hvy tanks, refinery ..... bbl. 1.25 / 1.55
- light ..... bbl. 1.65 / 2.10

U. S. IMPORTS
WOODPULP
Preliminary, April, 1950

Item	Country of Origin	Short Tons
Mechanical		
Unbldchd.	Canada	13,870
	Sweden	999
	Finland	2,323
		17,192
Screenings	Canada	152
Bleached	Canada	479
Chemical		
Sulfite, Unbldchd.	Canada	22,658
	Sweden	2,176
	Norway	28
	Austria	1,343
	Finland	1,722
		27,927
Screenings	Canada	149
Sulfite, Bldchd.		
Rayon & Special Chem. Grades	Canada	20,359
	Sweden	1,231
		21,590
Other	Canada	19,965
	Sweden	1,319
	Norway	2,293
	Austria	1,519
	Finland	1,667
		26,763
Sulfate, Unbldchd.	Canada	10,655
	Sweden	3,737
	Norway	157
	Finland	7,816
		22,365
Sulfate Bldchd.	Canada	27,926
	Sweden	2,872
	France*	39
		30,837
Soda, Unbldchd. & Bldchd.	Canada	2,333
Totals, April	Canada	118,946
	Sweden	12,334
	Finland	13,528
	Austria	2,862
	Norway	2,478
	France*	39
		150,187

* Being investigated by Census.

Hydrogen peroxide:
- USP, 35% cbys. E of Miss. lb. .23½

Lime:
- hydrated, bags, wks. Buffalo ton 13.50

Rosin.
- B gum, drms, c.l. Savan ..... cwt. 4.85
- GHIK gum, do ..... cwt. 4.85
- B wood, do ..... cwt. 3.50
- FF wood, do ..... cwt. 4.80

Rosin size:
- 70%, gum & pale grds, tank cars, south, sh. pt. ..... cwt. 4.75 / 5.00

Salt cake:
- dom. bulk, c.l. contract del'd ton 18.00 /20.00
- wks. frt. all ..... ton 22.00 / —

Soda ash:
- light, 58%, bags, wks. ..... cwt. 1.25
- bulk ..... cwt. 1.00

Sodium silicate 40°:
- turbid, c.l. wks. ..... cwt. 1.05
- l.c.l. wks. ..... 1.25 / 1.35

Sodium peroxide:
- dms. c.l. E. of Miss. ..... lb. .18
- l.c.l. do ..... lb. .18½ / .19

Soybean, protein:
- chem. isol, wks. c.l. ..... lb. .20 / .20½
- Cinn. and Chic.

Sulfuric acid:
- 60° Be. cbys. c.l. ..... cwt. 1.40
- E. wks.
- l.c.l. ..... cwt. 1.80 / 2.50

Sulfur:
- crude c.l mines, contract, long ton 18.00
- f.o.b. vessels Gulf 19.50
- Export, f.o.b. Gulf 22.00

Sulfur dioxide:
- liquid, coml. cyl. wks. ..... lb. .09
- multi-unit cars ..... lb. .0535

Starches
- pearl corn, bags, c.l. Chic. cwt. 5.17 / —
- white dextrines, c.l. Chic. cwt. 6.44 / —
- potato, Idaho, c.l. wks. ..cwt. 5.00 / —
- potato, Maine, c.l. wks. ..... cwt. 5.25 / —
- tapioca, conv. dextrines—cwt. — / 8.00
- medium grds. Gulf ports ..... 6.25 / 6.50
- low, Siam, on dock NY ..... 4.25 / 5.25

Talc:
- domestic, 50-lb. sacks, c.l. wks. ..... ton 23.00 /28.00

Titanium dioxide:
- anastase, c.l. deld., bags .. lb. .19½
- l.c.l. deld. ..... b. .20
- rutile, c.l. deld. ..... lb. .21¼
- l.c.l. deld. ..... lb. .22½

N. B.: For special market conditions, see *Trends*.

IMPORTS

IMPORTS AT NEW YORK
Week Ending June 3

Newsprint
(———), Markland, Liverpool, N.S., 4,183 rolls (1,668 rolls, Richmond, Va.).

News Syndicate Co., Elin Hope, Baie Comeau, 7,636 rolls.

Wallpaper
Gardiner Trading Corp., Pres. Johnson, Hong Kong, 3 cs.

Lieberman & Waelchli, Aristopais, Yokohama, 4 cs. (grasscloth).

C. A. Haynes & Co., American Merchant, London, 16 ctns.

Wrapping Paper
The Borregaard Co., Stockholm, Gothenburg, 87 rolls.

Note Paper
(———), Parthia, Liverpool, 10 cs.

Surface Coated Paper
Gevaert Co. of America, American Lawyer, Antwerp, 13 cs.

Gevaert Co. of America, Amsteldyk, Antwerp, 7 cs.

Crepe Paper
Brundage Merchandise Co., American Lawyer, Antwerp, 27 cs.

Colombia Tobacco Co., Washington, Southampton, 1 cs. (wads).

Tissue Paper
Colombia Tobacco Co., Washington, Southampton, 1 cs.

G. C. Lippelgoes, Parthia, Liverpool, 4 cs.

Napkins
Freund-Mayer, Colombia, Copenhagen, 18 cs.

H. W. Robinson & Co., American Merchant, London, 7 cs.

Serviettes

Great Lakes Press, Colombia, Copenhagen, 82 cs.

Parchment

International Forwarding Co., Queen Mary, Southampton, 1 cs. (sheepskin).

Gummed Paper

B. F. Drakenfeld & Co., Parthia, Liverpool, 27 cs.

Filter Paper

H. Reeve Angel & Co. Inc., American Merchant, London, 26 cs.

Printing Paper

Oxford University Press, Parthia, Liverpool, 15 cs.

Olympic Shipping Co., Vibeke Maersk, Rouen, 30 cs, 1 bl.

Winsor Newton Inc., American Merchant, London, 3 cs.

S. H. Pomerance & Co., American Merchant, London, 3 cs.

Stevens Nelson Paper Corp., American Merchant, London, 1 cs.

Photo Paper

Eastman Kodak Co., American Merchant, London, 1 cs. (base).

Lep Transport, Inc., American Merchant, London, 12 rolls (base).

American Merchant, London, 102 rolls, 1 cs. (base).

Writing Paper

F. L. Kramer & Co., American Merchant, London, 1 cs.

Paperhangings

C. A. Haynes & Co., American Merchant, London, 41 pkgs.

Aluminum Paper

Hunter Douglas Corp., Westerdam, Rotterdam, 1 cs.

Wallboard

Elof Hansson, Inc., Rosa Thorden, Gothenburg, 383 crates.

Kraft Paper

Phelps Paper Products, Rosa Thorden, Gothenburg, 233 rolls.

Miscellaneous Paper

Stevens Nelson Paper Corp., Aristopais, Yokohama, 17 cs.

Stevens Nelson Paper Corp., American Shipper, Hamburg, 18 cs.

Hermann Paper Co., Westerdam, Rotterdam, 5 bls.

Rags, Baggings, etc.

1st National Bank of Chicago, Ingioa, Leningrad, 1,833 bls. cotton linters, 83 bls. cotton waste.

1st National Bank of Boston, Ingoia, Leningrad, 3,363 bls. cotton linters, 423 bls. cotton waste.

United Wool Waste Corp., Ronda, Havre, 5 bls. woolen rags.

J. J. Rozendaal, Black Gull, Antwerp, 73 bls. cotton waste.

Bernstein Woolstock Co., American Judge, Antwerp, 2 bls. wool waste rags.

Royal Manufacturing Co., Amsteldyk, Antwerp, 58 bls. cotton waste.

(———), Parthia, Liverpool, 35 bls. old rags, 98 bls. new wool rags.

National City Bank, Rosa Thorden, Gothenburg, 75 bls. paperstock.

National City Bank, Rosa Thorden, Helsingborg, 128 bls. jute bagging.

(———), Sygna, Buenos Aires, 23 bls. wool rags.

(———), American Merchant, London, 133 bls. old bagging, 60 bls. old strings.

Harris Goldman Co., American Merchant, London, 59 bls. old waste bagging.

E. J. Lang, American Merchant, London, 80 bls. old bagging.

Merchants National Bank, American Merchant, London, 19 bls. cotton rags.

A. W. Fenton Co., American Merchant, London, 153 bls. scrap bagging.

Ayres W. C. Jones, Vibeke Maersk, Rouen, 183 bls. cotton waste.

E. J. Lang, Vibeke Maersk, Rouen, 355 bls. jute rags.

Brandwein Mazur Co., Vibeke Maersk, Rouen, 166 bls. cotton waste.

A. W. Fenton Co., Vebeke Maersk, Rouen, 179 bls. waste bagging.

J. P. Fleissig Co., Vibeke Maersk, Rouen, 48 bls. rags, 72 bls. bagging.

A. de Vries Trading Corp., Vibeke Maersk, Rouen, 133 bls. old rags.

A. Siegle Corp., Vibeke Maersk, Rouen, 44 bls. cotton waste.

Midwest Waste Materials Co., Vibeke Maersk, Antwerp, 193 bls. scrap bagging.

Southern Waste Co., Vibeke Maersk, Rotterdam, 438 bls. cotton waste.

Harris Goldman Co., Vibeke Maersk, Rotterdam, 112 bls. old rags.

Hidecuttings

Karr Ellis Co., Parthia, Liverpool, 208 bags.

Woodpulp

Price & Pierce, Ltd., Stockholm, Gothenburg, 250 bls. woodpulp.

Perkins Goodwin & Co., Stockholm, Gothenburg, 205 bls. woodpulp.

Parsons & Whittemore, Inc., Oslofjord, Oslo, 6 bls. sulphate pulp.

B. M. Heede, Oslofjord, Oslo, 16 bls. sulphite pulp.

The Borregaard Co., Inc., Rosa Thorden, Gothenburg, 10 bls. woodpulp.

IMPORTS AT NEWARK

Week Ending June 3

Pagel Horton & Co. Inc., Rosa Thorden, Karskar/Gefle, 2,540 bls. woodpulp.

Pagel Horton & Co. Inc., Rosa Thorden, Husum, 1,524 bls. sulphate pulp.

IMPORTS AT BALTIMORE

Week Ending June 3

China American Paper & Pulp Co., Exilona, Trieste, 870 bls. chemical pulp.

Pagel Horton & Co. Inc., Rosa Thorden, Karskar/Gefle, 916 bls. woodpulp.

Pagel Horton & Co. Inc., Rosa Thorden, Hornefors, 9,144 bls. sulphate pulp.

IMPORTS AT NORFOLK

Week Ending June 3

National City Bank, Ronda, Antwerp, 47 bls. scrap bagging.

Bank of The Manhattan Co., Ronda, Havre, 67 bls. jute rags.

A. de Vries Trading Corp., Ronda, Havre, 88 bls. scrap bagging.

National City Bank, Ronda, Rouen, 58 bls. rags, 182 bls. scrap bagging.

D. Beneletto, Ronda, Rouen, 82 bls. rags, 73 bls. old waste bagging.

National City Bank, Black Gull, Antwerp, 200 bls. jute card waste.

Darmstadt, Scott & Courtney, American Traveler, Manchester, 54 bls. bagging.

Hipage Co., American Traveler, Manchester, 64 bls. old bagging.

National City Bank, American Traveler, Glasgow, 96 bls. jute waste.

F. P. Gaskell Co., American Traveler, Glasgow, 75 cs. cigarette paper (for tipping).

IMPORTS AT BOSTON

Week Ending June 3

P. A. Dunkel Colombia, Copenhagen, 500 bags lactic casein.

Royal Manufacturing Co., Black Gull, Antwerp, 57 bls. cotton waste.

H. Meyer & Co., Amsteldyk, Rotterdam, 420 bls. gluestock.

Hartog Ruf, Amsteldyk, Rotterdam, 150 rolls wrapping paper.

Brown Bros., Harriman & Co., Parthia, Liverpool, 129 coils old rope.

1st National Bank of Boston, Parthia, Liverpool, 8 bls. wool waste rags.

Merchants National Bank of Boston, Parthia, Liverpool, 8 bls. wool waste rags.

Rockland Atlas National Bank, Parthia, Liverpool, 15 bls. woolen waste.

(———), Parthia, Liverpool, 23 bls. wool waste rags, 27 bls. woolen waste.

IMPORTS AT PHILADELPHIA

Week Ending June 3

E. J. Keller Co., Inc., Black Gull, Antwerp, 55 bls. old bagging.

C. Kutz, American Traveler, Manchester, 43 bls. cotton rags.

Tradesmans National Bank, American Merchant, London, 19 bls. new cotton rags.

Pagel Horton & Co., Inc., Rosa Thorden, Karskar/Gefle, 2388 bls. woodpulp.

IMPORTS AT ALBANY

Week Ending June 3

Gottesman & Co., Inc., S. S. Belos, Gefle, Sweden, 3,556 bls. bleached sulphite pulp.

Kraft Board Mfrs. On Tariff Cuts

WASHINGTON, D.C.—The Fourdrinier Kraft Board Institute, Inc., representing manufacturers of kraft paper board, protests against a further reduction in the duty rate on paperboard. The rate of 10 percent provided in Paragraph 1402 of the Tariff Act of 1930 was reduced to 7½ percent by the Trade Agreement with Finland negotiated at Annecy, and is scheduled for further consideration in the conference at Torquay in September, when it may be reduced to 5 percent.

Paragraph 1402 includes all forms of paperboard, including kraft liner board, corrugating media when in board thicknesses, and other forms of paperboard. All forms of kraft paperboard are of vital importance to this organization.

The reduction of the present duty rate will serve to expedite the migration of at least part of the kraft paper and paperboard industry to Canada, just as placing newsprint on the free list caused the migration of the newsprint industry to Canada.

An example of the danger faced by the entire kraft board industry is in a new type of kraft corrugating material now being imported from Canada

PROTECT or PAY

You have no other choice!

There are just two reasons why corrosion costs industry over $6,000,000,000 annually:

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in large quantities. The initiation of imports about three years ago of this kraft paperboard for use as a corrugating medium in the production of boxes and shipping containers caused the loss of 30,000 tons a year of potential tonnage to domestic mills. The success of Canada's invasion of this market has already resulted in plans for the enlargement of the kraft industry in Canada. A further reduction in duty rates will accelerate this loss of American production to Canadian competitors. A paper mill can not be built over night but the danger of such an eventual migration is no less definite.

The growth of the kraft industry in the Southern states has been one of the outstanding industrial developments in American industry in recent years. The freight rate situation, however, has been such that today Canadian mills are increasingly able to compete with the great southern industry in the northern part of this country. Lower freight rates, adequate supplies of wood, lower wage rates and other production costs, to say nothing of the depreciation of Canadian currency, are making Canadian mills even now dangerous competitors for the American mills. Any further reduction in the rate of duty may well be disastrous to the kraft paper industry which has led in the industrial development of the south.

The development of the kraft industry in Canada will be a boon to existing paper manufacturers in Canada by reason of the possibility of using woods not suitable for such grades as newsprint. Under Canadian regulations, paper mills cutting wood under authorization of the Government must utilize woods other than spruce, though spruce is the chief species needed for newsprint and printing papers. There are enormous quantities of jack pine, aspen, and other hard woods which the paper mills are forced by law to utilize in conjunction with their utilization of spruce. These species are a cheap raw material for the mills which are going more and more into the production of kraft paper and paperboard.

Corrugating media are ordinarily produced nine one thousandths of an inch in thickness, known as nine points. This material is below the twelve-point limit for importations under the classification of paperboard and would be dutiable at 30 percent as paper not specially provided for. Pending negotiations contemplate a reduction in the rate of duty on paper not specially provided for, possibly to 15 percent.

About three years ago a large Canadian mill began the production of a new material for corrugating purposes, with a base of kraft. This material was produced in a loose formation to caliper twelve points and thus be dutiable as paperboard at 10 percent (reduced by the Annecy agreement to 7½ percent) instead of 30 percent for paper not specially provided for. The material is so loosely formed, however, that it readily compresses to the equivalent of a normal 9-point sheet.

Because of the cheap material used in its production, Canada has been able to sell this product at approximately $76.50 per ton, f.o.b. mill. With a duty rate of only 10 percent, and production costs at least 10 percent below those in the United States, Canada is able to ship this merchandise on the equivalent of a duty free basis, even without considering the added advantage of the 10 percent depreciation of the Canadian dollars.

A newly established Michigan producer provides a concrete example of the effect of these importations on the domestic trade. This company purchased an old mill at Filer City, Mich., and modernized it for the production of corrugating material. The Michigan company expended approximately $4 million in the purchase and modernization of its newly acquired mill, largely at the insistence of the United States Forest Service that such a development would be of great advantage to Michigan, through the utilization of great areas of aspen and other woods formerly considered useless. This development envisaged an important expansion in the field of practical forestry and added income to those employed in the cutting and marketing of this timber.

However, the competition of the Canadian material, even at the present rate of duty, has been so serious that this new mill can not operate at a reasonable profit, and the company has canceled plans for the expenditure of an additional $2 million in enlarging its new plant.

While this particular company does not produce Fourdrinier kraft board, as known to this Institute, its experience is a graphic illustration of what is occurring in the whole field of corrugating media production.

Today, kraft mills in the Southern states regard the production of corrugating kraft as a field with the least potential profit as the result of Canadian competition and produce this grade only when orders are lacking for higher grade materials.

A reduction in the rate of duty on paperboard as scheduled for negotiation at Torquay would be a further restriction on the possible full utilization of the productive capacity of an

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industry which has become one of the South's greatest assets, a market for wood produced by small land owners, and the employer of thousands of persons in the woods and the mills.

It is because of this situation that the Fourdrinier Kraft Board Institute protests against the proposed reduction of the duty rate on this commodity.

LITERATURE

The Foxboro Co. Application Engineering Data Sheet 821-1. Includes engineering details covering control of cleaning cycles for traveling screens, a schematic installation drawing and typical wiring diagram.

Forest Products Research Society. Book, third vol., 607 pp., cloth-bound, price $8, "Proceedings." Contains the 53 technical papers and discussions presented at the Third National Meeting of the Society. Valuable reference work covering the entire industrial wood utilization field.

The Farval Corp. Bulletin, "Studies in Centralized Lubrication." Presents typical case studies and illustrations of Farval installations.

General Dyestuff Corp. Circular G-649, "Indanthrene Paper Blue GWP Powder." Describes properties and recommends uses.

B. F. Goodrich Co. Catalog 12020, features manufacturer's line of storm hats, leggings and sleeve protectors, of both rubber and Koroseal. Catalog 12000, "Industrial Raincoats." Catalog 12015, "Police and Fire Coats." Describes and pictures each of the products.

The Hauser-Stander Tank Co. Catalog, Issue No. 80, "The Book of Tanks." Purports to show in an interesting way the construction of the manufacturer's line of standard tanks and other products. Specially constructed or irregularly shaped tanks also are shown.

Hagan Corp. Bulletin 2250, "Differential Pressure Transformer." Illustrates and describes applications, construction features and operating characteristics.

Hewitt-Robins, Inc. Bulletin No. 137, "Servall Hose." Covers construction, design features and applications of Servall Hose.

Ingersoll-Rand Co. Four-page flier, "Cradle-Mounted Centrifugal Pumps for Process and Refinery Service." Shows a sectional view of the pump with all of its salient features pointed out and described. Various types of drives are illustrated. Form No. 3127-A, "JVG, Gas-Engine-Driven Compressors." Contains a cross-sectional view and details pertaining to construction features, as well as a list of uses to which the JVG is particularly suited.

Klipfel Valves, Inc. Chart, "Automatic Regulating Valves." New float and lever valve selection chart designed to aid the man who has to specify valves occasionally and who does not have all the engineering background necessary to do the job easily.

Michigan College of Mining & Technology, Forest Products Research Div. "Woods Safety Handbook" prepared by Leland W. Hooker, timber technologist with the Division, and recently published by the Mich.-Wisc. Forest Products Safety Council. Reports the findings of a thorough study of more than a thousand accidents in the forest products industries made under the supervision of Dr. Hereford Garland, Dir. of the Division, and assisted by Prof. Robert Hagen of the Mich. Tech faculty. The accident rate in forest work is higher than that in any other industry. The project was undertaken at the request of the Safety Council which was recently formed by a joint safety committee of the Timber Producers Assn. of Wis. and Upper Mich. and the Northern Hemlock and Hardwood Mftrs. Assn.

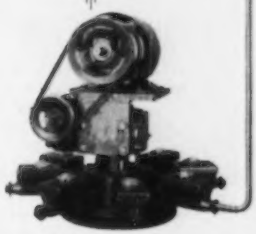
Market Guide for Latin America. Survey, "1950 Market Guide for Latin

LODDING HYDRAULIC OSCILLATING SYSTEM—

universally applicable—oscillates any doctor on any roll. Space consideration no problem since oscillator occupies no more space than the doctor journal itself. One hydraulic line from each doctor to a master unit which can be located anywhere. One master unit can be used to oscillate as many as eight doctors.

Actuating cylinder journal of doctor. Note small space requirement.

The Lodding system offers low initial cost, low installation cost, low maintenance cost. This, plus the fact that it will fit anywhere a doctor will fit, including a great many places where oscillation has long been thought impossible, makes the Lodding Hydraulic Oscillating System the complete answer to the doctor oscillating problem.



Master unit serving all doctors oscillated. No valves—no circulating system.

Lodding Engineering Corporation, Worcester, Mass.
Represented by W. E. Greene Corporation,
Woolworth Building, New York.

AMERICAN PAPER AND PULP ASSOCIATION'S PAPER PRODUCTION RATIO REPORT

(Production as per cent of six-day capacity)

COMPARATIVE WEEKLY SUMMARIES

	Apr. 29	May 6	May 13	May 20	May 27
1950	101.5	102.8	102.4	‡103.3	103.1
	Apr. 30	May 7	May 14	May 21	May 28
1949	*85.4*	*84.6*	*85.0*	*80.2*	*83.4*

‡ Revised.

COMPARATIVE MONTHLY SUMMARIES

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year Avg.
1950	98.7‡	101.1‡	102.6‡	100.9‡									
1949	*94.6*	*92.8*	*89.1*	*85.1*	*82.7*	*74.6*	*72.8*	*87.6*	*90.3‡*	*93.0‡*	*92.4‡*	*90.4‡*	*88.6‡*

‡ Preliminary.

COMPARATIVE YEARLY SUMMARIES

	1943	1944	1945	1946	1947	1948	1949	1950
Year to Date	88.9	88.3	88.6	99.9	105.3	100.7	89.1	101.3
Year Average	87.8	88.1	89.4	100.1	104.3	96.2	‡88.6	

PAPERBOARD OPERATING RATIOS†

	Apr. 29	May 6	May 13	May 20	May 27
1950	92	92	93	92	93
	Apr. 30	May 7	May 14	May 21	May 28
1949	*80*	*78*	*79*	*77*	*77*

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year Avg.
1950	88	92	91	92									
1949	*88*	*85*	*79*	*79*	*78*	*75*	*66*	*86*	*87*	*94*	*93*	*83*	*83*

* All of the above data is based on tonnage reported to American Paper and Pulp Association. Does not include mills reporting to National Paperboard Association, except in isolated cases where both paper and paperboard are produced and separate tonnage figures are not readily available. Does not include mills producing newsprint exclusively.

† Per cents of operation based on "Inch-Hours" reported to the National Paperboard Association.

America." Gives a complete analysis of this rich and promising market — one of the few markets having an ample supply of dollar exchange.

National Adhesives. Booklet, "Successful Can Labeling." Includes operational data and labeling difficulties — their causes and correctives.

Paisley Products, Inc. "Paisley Dilution Calculator." Provides directions for diluting industrial adhesives. Aims to assist all adhesive users in figuring the proper amount of water to be added to a given amount of adhesive to any desired percentage.

Philadelphia Quartz Co. Illustrated Bulletin 15-1, "Coating Paper with PQ Sodium Silicate." Tells how to apply the coating, the type of silicate to use, dilution, etc. Also, folder, "Safeguard Shipments." Outlines the use of silicate adhesive for sealing boxes.

Davidson Publishing Co. Book, 1950 edition, 584 pp., 8½ x 11½, bound in a hardcase of embossed leatherette, price $10.00, "The Paper Year Book." Presents detailed information on over 1,000 papers, paper products and related items closely associated with the paper industry; also markets and uses for the products, and other information for both buyers and sellers of paper. Includes over 700 photographs and more than 100 charts and tables, and is made up in nine major sections each thumb-indexed for ready reference.

Paper Stationery & Tablet Mfrs. Assn. Promotional material for the 13th Annual National Letter Writing Week, which will be observed this year October 15-21, designed specifically to promote writing paper sales.

Remington Rand, Inc. Brochure, "How We Won Production Control." A case history of the advantages of an intelligent and thorough management engineering job, by C. Edgar Smith, Ex. Vice-President, Towmotor Corp., Cleveland.

Riegel Paper Corp. Folder, "Riegel's Glassine." Contains samples of 21 glassine, greaseproof, waxed, coated and foil-laminated packaging papers, also a chart that assists in the selection of the proper paper. Briefly describes the principle characteristics of the papers that are sampled and tabulates a few of their general uses.

OBITUARIES

George W. Brown, 64, president and general manager of Gair Co. Canada Ltd., died on June 1 in Toronto. He was a native of New York City, came to Canada in 1914, and entered the pulp and paper industry with the Gair Co. 25 years ago. He was a director of Robert Gair Co., Inc., of the U. S. and a member of the executive committee of the Canadian Pulp and Paper Assn. Surviving are his widow and four married daughters.

Hazen Hulbert Dilno, 57, production manager of the Roaring Spring Blank Book Co., Roaring Spring, Pa., died May 14. He had been purchasing agent for the Kalamazoo Stationery Co., Kalamazoo, Mich., for 10 years, and he worked for nine years as superintendent of the school specialty department of the Kalamazoo Vegetable Parchment Co.

He was in the employ of the Nekoosa-Edwards Paper Co., Nekoosa, Wis., at one time in his career; the Newton Falls Paper Co., Newton Falls, N. Y.; and from 1940 to 1948 was general manager of the Groveton Paper Co., in Groveton, N. H. Surviving are his widow, Helen; a son, Gordon, who is division sales manager for the Sutherland Paper Co., Kalamazoo, Mich.; two grandchildren and a brother.

Harold Hansen, 49, recently appointed vice-president in charge of the manufacturing department of the National Blank Book Co., died May 24 at his home in Fairview, Mass. He had been employed by the concern for 33 years. Mr. Hansen leaves his widow, a daughter and two sisters.

Cyrus Field Logan, 92, paper maker and inventor, died at his home in Washington, D. C., on May 26.

Active until his death, Mr. Logan had spent most of his life devising formulas for paper making and improvements in paper-making machinery. Among his inventions was a pattern circulator for digestors installed in many mills here and abroad.

He had served, with offices here since about 1908, as consulting engineer in pulp and paper making. Plans he had prepared for a paper-making plant in Jamaica, B.W.I., to use banana waste were scrapped as a result of World War II, but he had evolved methods of using such waste, as well as marsh grasses and other materials.

Native of what is now Loganbank, Quebec, he began work in his father's paper mill at an early age, and was superintendent of this mill before he was 21. This, and another owned by others of his family, are still in operation there, family members said.

Mr. Logan had served as superintendent of mills at Berlin Falls, N. H., and in New York state, Pennsylvania, Washington state, Virginia and Georgia.

He leaves a son, Cyrus L. Logan, of Washington, D. C.

Henry William Tuttrup, treasurer of Northern Paper Mills, Green Bay, Wis., died on June 1, 1950.

William P. Yanes, 54, an executive in the Boston Paper Board Co., died on May 28. Well known in the paper business, Mr. Yanes had been with the Boston Paper Board Co. for 28 years. Surviving are his widow and a daughter, Mrs. Marvin Hoffman; and two brothers, Edward H. and George F. Yanes.

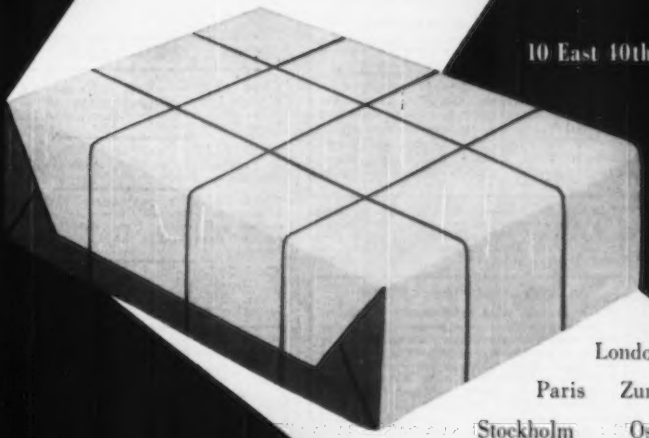
Lyddon & Co.

exporters of
wood pulp to all
world markets

Parsons & Whittemore

paper exporters
wood pulp

10 East 40th Street, New York 16, N. Y.



London
Paris Zurich
Stockholm Oslo
Sousse Montreal
Buenos Aires
Sao Paulo

CLEARING HOUSE

HELP WANTED

MEN WANTED
Positions Open

Superintendent coated paper plant; assistant superintendent kraft mill; night superintendent blue print papers; assistant board mill superintendent; fourdrinier and cylinder machine foremen (4 openings); beater engineers.

Chemists and chemical engineers, $3500-$9000; machine tenders and back tenders; hydraulics engineer; mechanical and civil engineers; architectural draftsmen and designers; cost accountant.

We invite correspondence (confidential) with mills seeking executives and with executives seeking new positions.

CHARLES P. RAYMOND SERVICE, INC.
294 Washington St., Boston, Mass. J-8

WANTED: by aggressive one machine Midwest boxboard mill, working Master Mechanic, to take full charge of paper machine and all other equipment including boiler room. Must be able to handle men. State age, experience, list previous jobs, personal details and salary desired. Job open at once. Address Box 50-280 care Paper Trade Journal. J-15

AGENTS WANTED OUT OF NEW YORK BY LARGE PAPER CONVERTOR IN NEW YORK CITY WHO IS RATED AA1. WANT ONE WHO CAN SELL CANDY BOX PADDING, SHREDDED PAPERS AND MANY OTHER PAPER SPECIALTIES. WRITE DETAIL.

BOX NUMBER 50-282 CARE PAPER TRADE JOURNAL
J-8

Chemical manufacturer requires services of man with technical training and several years' experience in paper manufacture to handle technical service work in connection with an extended line of chemicals used by the Paper Industry. Should preferably be between 25 and 35 years of age. Will be required to travel to paper mills within given area and after securing proper training and experience should be qualified to discuss mill problems of a chemical nature with paper mill executives. Our men know of this advertisement. Write Box 50-272, care Paper Trade Journal. J-15

WANTED:—

Two up and coming back tenders with five to ten year's experience on felt, board or .900 machine to break in as machine tenders. Two boys with dry end experience to break in as back tenders, would prefer unmarried men. Replies to Box 50-229 care Paper Trade Journal. J-15

CHEMIST OR TECHNICAL SUPERVISOR WANTED for two machine board mill in Indiana. Recent college graduate with some paper mill experience preferred. Fine opportunity for an aggressive man. Address Box 50-276 care Paper Trade Journal. J-15

HELP WANTED

SALARIED POSITIONS $3,500—$35,000

If you are considering a new connection communicate with the undersigned. We offer the original personal employment service (40 years recognized standing and reputation). The procedure, of highest ethical standards, is individualized to your personal requirements and develops overtures without initiative on your part. Your identity covered and present position protected. Send only name and address for details.

R. W. BIXBY, INC.
117 Dun Bldg., Buffalo 2, N. Y.
TF

Tour Boss, good color man on Rag papers; Night Sup't., for rag content and all-sulphite papers; Quality Control Man, technical papers; Coating Room Foreman; Chemists; Salesmen for Fine Papers; General Superintendent, Mill Manager with pulp and paper background.

PERSONNEL SERVICE ASSOC., 115 State Street, Springfield 3, Mass. Specialized Confidential Placement Service for the Paper and Allied Industries.
J-8

SALES ENGINEER WANTED

One of the largest industrial instrument companies needs aggressive sales engineer for Southeastern territory. Familiarity with pulp and paper processes desirable. Graduate engineer willing to travel. Automobile furnished. Exceptional opportunity for man alert to growing need of instrument applications and usage.

Reply Box 50-267 care Paper Trade Journal. J-15

"Control Laboratory Chemist required by kraft specialty pulp and paper mill. Must be capable of supervising a staff of technicians and paper testers, have a college education and be able to assume complete responsibility for the control of both pulp and paper. Address reply to Box 50-271 care Paper Trade Journal giving full information. J-15

WANTED—Technical Service Man for Paper coatings field. Young chemist or Chemical Engineer, 1 or 2 years experience in Paper Coatings or Paper Mill. Address Box 50-262 care Paper Trade Journal. J-15

WANTED—PAPER MILL CHEMIST

Mid-western mill wants Paper Chemist-Technologist of several years laboratory experience. College training in Pulp and Paper course preferred. Should be capable of supervision of small staff of technicians and paper testers. Give complete information on education, experience and salary desired in first letter. Address Box 50-247 care Paper Trade Journal. TF

SALESMEN WANTED outside of the Metropolitan area of New York City to sell coarse paper jobbers corrugated specialties. No objection to affiliated lines. State age, experience and territories covered. Address Box 50-286 care Paper Trade Journal. J-8

MASTER MECHANIC for two Fourdrinier Machine Mill, Southwestern Ohio—state experience in application. Address Box 50-281 care Paper Trade Journal. J-8

WANTED — Superintendent for Finishing Room. Medium sized mill making bonds and writings. Middle west. Address Box 50-257 care Paper Trade Journal. J-8

SITUATIONS WANTED

MASTER MECHANIC or Plant Engineer, 26 years experience setting up and maintaining all kinds of machinery including all welding. Address Box 50-284 care Paper Trade Journal. J-8

SITUATIONS WANTED

PLANT ENGINEER

20 years successful administrative and engineering experience in construction, design and maintenance of buildings and power and production equipment. Resume of history and experience upon request. 9 years chief engineer of board mill and carton plants. Age 42. Address Box 50-269 care Paper Trade Journal. J-15

PLANT MANAGER—Board and Paper Conversion; employed; seeks opportunity in company needing cost-minded executive with proven production record and excellent labor relations history. Address Box 50-233 care Paper Trade Journal. J-29

COATING MILL SUPERINTENDENT with 25 years experience in coating specialty, would accept position with well established and progressive mill. Address Box 50-263 care Paper Trade Journal. J-8

CELLOPHANE SPECIALIST. Qualifications —18 years experience in cellophane bag machine, high speed paper bag machine, Aniline printing. Have also trained men on these operations. I am a young man and at present time have supervisory job in a large bag department. Address Box 50-285 care Paper Trade Journal. J-8

CHEMICAL ENGINEER B. S. — Young, Versatile. Development experience on new functional papers. Also technical executive and sales service background. Desires responsible position in Midwest Area. Address Box 50-279 care Paper Trade Journal. J-22

FOR SALE

FOR SALE—1—Used R.H. #1 and 1 used L.H. #2 Miami Jordans complete with Plugs. Priced to sell. Address Box 50-266 care Paper Trade Journal. J-15

FOR SALE—Polyethylene Melt Coating and Laminating Machine. Address Box 50-254 care Paper Trade Journal. J-8

FOR SALE—2 used 46-inch Waldron 6-brush coating units with complete festoon drying system and reelers. Good condition. Price reasonable. Address Box 50-253 care Paper Trade Journal. TF

FOR SALE—One No. 8 Wellman Wood Grab. Capacity ½ cord 8 ft. wood. Excellent condition. Address Box 50-283 care Paper Trade Journal. J-29

PUBLIC SALE
of
Paper Mill at Claremont, N. H.

Claremont Paper Corporation will sell at public auction to the highest bidder on its premises at 131 Sullivan Street, Claremont, New Hampshire on June 14, 1950 at two o'clock p.m. Eastern Daylight time, its complete operating plant for the manufacture of Kraft paper and Kraft specialties.

Land and buildings, appurtenant water rights, machinery, equipment, mill supplies and certain inventory in or about said premises are included in the sale.

Mill has capacity of 45 tons per day and is now operating at capacity. Three paper machines—136", 104" and 64" wire widths.

Terms of Sale: Ten Thousand Dollars ($10,000.00) to be paid in cash by the purchaser at the time and place of the sale and the balance not later than thirty (30) days thereafter. Other terms to be announced at the sale.

For inspection of property or other particulars apply to W. A. Kirn, President, Claremont Paper Corporation, Claremont, New Hampshire. Telephone Claremont 4. J-8

ROSS PAPER MACHINERY CO.
261 PASSAIC STREET
NEWARK 4, N. J.
CONVERTING PAPER MAKING EQUIPMENT
NEW-USED-REBUILT PAPER AND PULP MACHINERY
CABLE ADDRESS: JACROSS

1—Pusey & Jones 82" Fourdrinier Machine Complete, 3 Presses, 19 Dryers, 2 Calender Stacks, Winders.

AMERICA'S LARGEST BUYERS OF PAPER MAKING MACHINERY

ANILINE PRESS
1—Lockport 4 color Aniline Press.

BEATERS
1—Valley Iron 750 lb. Iron Tub—Bronze filled.

BELTING—NEW
87 feet 9" 13 ply Goodyear Rubber Belting.
553 feet 8" 4 ply Silver Duck Transmission belt.
277 feet 10" 6 ply Silver Duck Transmission Belt.

BLOWERS
5—Blowers and Mill Exhausters.

CALENDER ROLLS
46 Chilled Iron Rolls—Assorted sizes.

CALENDER STACKS
1—76" face 7 roll with drive.
1—76" face 3 roll with drive.
1—112" face 7 roll.
1—82" face 5 roll Sandy Hill.

CONVEYOR
1—181½ ft. long x 30" wide—with motor.

CYLINDER MOLDS
1—74" face x 36" diameter.
1—134" face x 36" diameter, with stainless steel shafts.

DRIVES
1—8c. Reeves Drive. 40-50 h.p.—Ratio 4 to 1.

DRYERS
5—143" face x 48" diameter.
5—124" face x 48" diameter.
5—80" face x 36" diameter.
1—77" face x 48" diameter—with gear.
1—64" face x 36" diameter.
15—78" face x 36" diameter, complete with 2 deck frames, gears, bearings and steam joints. Drives, line shaft and felt rolls are available.
1—78" face x 18" diameter with gears and bearings.
1—120" face x 18" diameter—Baby Dryer.
62—126" face x 42" diameter.
5—96" face x 36" diameter.
5—86" face x 36" diameter.
12—149" face x 48" diameter—with steam joints.
6—134" face x 48" diameter.
1—102" face x 48" diameter, with bearings.
1—94" face x 48" diameter—with gears and bearings.
5—100" face x 48" diameter—with gears and bearings.

ELECTRIC PAPER MACHINE DRIVES
1—G. E. 55/110 with G. E. Generator, Exciter and Controller.
1—G. E. 80/100 with G. E. Generator, Exciter and Controller.

EXTRACTOR ROLLS—SUCTION
1—Downingtown—64" face x 17" diameter with bearings & stand.

FLAT SCREENS
1—Sandy Hill 8 plate.
1—Beloit—6 plate.
1—Beloit—4 plate.

FOURDRINIER SECTIONS
1—P & J 153" x 80 ft. ball bearing. Complete from Inlet to 22" diameter suction couch. Brass and Rubber covered table rolls. 6 Brass Suction Boxes operated at 1000' per minute.
1—M & W 82" x 49' complete with 3 suction boxes, shake, 3 press sections and size press.

INLETS
1—96" All bronze—adjustable.

JORDANS
2—Jones Standard.
1—#3 Miami, for motor drive.
3—Jones Majestics with base and couplings—
2—#3 Appleton with base and coupling.
1—Dillon Herne. Stainless steel ½" Sliing.
1— Jones Majestic. Stainless Steel Filling.
1—#2 Emerson—with coupling.
1—Jones Majestic with 350 h.p. synchronous motor, starter and control.

MOTORS
1—Reliance 25 h.p. ball bearing, 550 v., 3 phase, 60 cycle—1750 r.p.m.
1—General Electric Synchronous 350 h.p.—400 r.p.m. 440 V, 3 phase, 60 cycle with starter and controls.

PULLEYS
30—Split cast iron tapered Pulleys.

PULP EQUIPMENT
1—Mitts & Merrill #17 Pulpwood chipper.
1—5' Carthage Disc Barker.
1—96" Murray 4 knife ball bearing Chipper, with 150 h.p. synchronous motor.

PULPERS
2—#2 Lannoye Pulpers—with drives.

PUMPS
44—Centrifugal Pumps, open & closed impellers. Direct connected or Belt Driven. Extended base for motor. Assorted capacities and heads. Most used less than one year. Also new Gould's Pumps.
1—Worthington Sump Pump—75 g.p.m. 60' head with General Electric 2 h.p. 220-440 v. motor.
1—Worthington Sump Pump—1500 g.p.m. 15' head with General Electric 7½ h.p. 220-440 v. motor.

REDUCERS
1—Link Belt 40 h.p. Ratio 2.2-1. 500 r.p.m.-227 r.p.m.
1—Falk 25 h.p. Ratio 300-1. 900 r.p.m.-3 r.p.m.

REELS
2—Beloit 110" two bowl Reel.
1—Beloit 132" two bowl upright reel.
1—Beloit 116" two bowl upright reel.

REFINERS
1—#2 Claflin Ball Bearing Refiner.

ROLLS—PRESS, COUCH, etc.
32—Press rolls, brass and rubber covered.
14—Couch rolls, brass and rubber covered.
253—Brass and steel carrying rolls.

ROTARY SCREENS
2—Jones Leithwalk—cylinder 84" face x 28" diameter.
1—#2 Leith-walk-ball bearing.
3—#3A Bird with Copper vats, enclosed drive.
2—#2A Bird with Copper vats, enclosed drive.
5—#14 Bird with Copper vats, enclosed drives and motors.

SAVEALLS
2—#5 Bird Savealls.

SCREW PRESSES
2—Valley Voith Screw Presses Size 2A, with new spare sets of plates.

SHEETERS
1—Hamblet 12 roll heavy duty doubledeck backstand.
5—Hamblet 62" single knife with 8 roll backstand and 4 slitters.
1—Moore & White 90" with 6 roll back stand, motor and 4 slitters.
1—Hamblet 84" duplex with layboy and backstand.
1—Dillon 64" single knife.

SHREDDERS
1—American 37" Hamermill, anti-friction bearing.
2—Sprout Waldron Cutters — type F-11 — 30" knives. Used 30 days.

SLITTERS AND WINDERS
2—Pusey & Jones 160" high speed slitters and rewinders.
1—Beloit 2 drum 125" with 8 slitters.
1—Cameron 42"—#6—with motor and controls.
1—Cameron 42"—24-2A—with motor and controls.
2—Langston 60" with motor and 25 sets shear cut slitters.
1—Langston 50" with 15 sets shear cut slitters.
1—60" Hudson Sharp Wax Roll Winder, with core cutter and automatic control.
1—Cameron 72" Model 6 Rewinder.

STUFF PUMPS
1—Shartle 8½x12 Triplex—Silent Chain Drive.
1—Shartle 10 x 20 Triplex.

SUCTION COUCH ROLLS
1—Millspaugh 22" diameter x 138¾" suction face.
1—Millspaugh 22" diameter x 158" drilled face.
1—Millspaugh 95" drilled face x 22" diameter.

SUCTION PRESS ROLLS
1—Millspaugh 127" drilled face x 22" diameter with stand & drive.

SUPERCALENDERS
1—66" Perkins 7 roll—with all electric equipment.
1—90" Holyoke 9 roll.

THICKENERS
1—88" Thickener—new wood vat.

TRIMMERS
1—Seybold Dayton 64".

TUBE WINDER
1—Langston with paste units and 11 mandrels.

VATS—STAINLESS STEEL
2—Dual Flow Stainless Steel vats for cylinders 48" diameter x 153" face—with stands for couches.

VACUUM PUMPS
5—Nash #2 Hytor. Bronze Impeller.
1—Nash L-5.
1—Nash Hytor #4.

VALVES
90 Valves—2" to 18"—practically new.

WET MACHINES
1—96" Wet Machine with new felts, ball bearing.
1—84" Wet machine—new vat.

FOR SALE

Fourdrinier type left hand paper machine, Beloit Fourdrinier Port new 1938, Voith high pressure inlet, Nash automatic wire guide, 25" suction couch. 1st and 2nd press 22" Suction Press, 24" & 26" dia. roll smoothing press. 32 dryers 48 x 86", Farrell calender, pope-reel. Now operating at 750 feet per minute.

One Jones 70" x 48" breaker beater, iron tub, built in 1943, with stainless steel bars, in excellent condition. Immediate delivery.

1—5' x 8' Vacuum Sludge Filter.
1—90" Super-Calender.

Frank H. Davis Company, 175 Richdale Ave., Cambridge 40, Mass. J-22

PAPER COATING MACHINERY MANUFACTURERS — Waxing, Oiling, Carbon, Laboratory Coating and Treating and Flat Ream Measuring and Converting Machines. New improvement. THE MAYER MACHINE COMPANY, INC., 1313 Buffalo Road, Rochester, 11, N. Y. TF

GOOD VALUES
For the Paper Mill

50" Camachine model 6 Slitter.
48" Kidder model CH Slitter.
32" Cameron model 24-3A Slitter.
32" Hobbs Slitter.
82" Hamblet Sheeter with layboy.
58" Finley Sheeter.
50" Hamblet Sheeter.
36 x 48 one color and 3 color Kidder Rotary Presses.
Flat Cutters, both hand lever and Automatic from 26" to 50".

Also many good values in Printing, Newspaper & Lithographing Equipment.

THOMAS W. HALL COMPANY, Inc.
120 West 42nd St., N. Y. 18
(Plant at Stamford, Conn.) TF

FOR SALE—64" & 96" Beloit Rotary Sheeter with 6 roll stand and slitter station. 50" & 64" Seybold Paper Cutters; 28" x 41" Thomson Die Cutter. Address Box 50-259 care Paper Trade Journal. TF

PAPER MILL TO BE SOLD AT AUCTION

Complete plant of Stillwater Tissue Mills, Inc., Stillwater, New York, including all buildings and equipment, will be sold as a unit at public sale on Saturday, June 17, 1950 at 2:00 P.M. at the mill. J-8

FOR SALE OR LEASE—Paper Board Mill with five cylinder machine, 64" trim. Situated advantageously to sources of raw material and sales outlets. Ample room for converting plant on premises. Address Box 50-244 care Paper Trade Journal. TF

CHESTNUT WET LAP FOR SALE

8 Air Dry Tons per day of pure chestnut wet lap 60% air-dry. Available for immediate shipment. Write for details and sample.

CHAS. A. SCHIEREN COMPANY
Bristol, Virginia J-8

FOR SALE

CAMERON SLITTERS

1—72" Model 10-10A.

2—62" Type 9-S.

1—62" Universal Type 6.

1—62" Shear cut, Type 6.

1—50" Shear Cut, Type 28, Model 3d.

1—42" Universal Type 6.

1—42" Type 26, Model 2A.

1—32" Type 40, Model 2A.

1—72" Type AA Langston shear cut slitter and rewinder, complete with 20 HP, A. C. motor equipment.

1—62" Waldron Shear Cut Slitter & Rewinder.

1—42" Johnstone Twelve Slitter & Rewinder.

1—30" Fales Standard Model B Slitter & Rewinder.

POWER PAPER CUTTERS: 5—Seybold; 1—40" 10Z, 1—44" Precision Type, 1—54" Holyoke, 1—54" 20th Century, 1—72" 20th Century, 3—Oswego, 44", 50" and 57", 2—Acme; 32" and 42", 1—S&W Undercut; 63".

1—Hudson-Sharp 3 deck 10 x 10 Napkin Folding machine. 1/6 Fold.

1—Paper Converting Machine Co.'s single width towel folder, late model.

2—81" Diets Toilet Paper Perforators. Sheets 4½ x 4½ and 4½ x 5 and paper towels perforated 7½ and 13½".

1—81" Hudson Sharp Toilet Perforator.

1—Paper Converting Machine Co. ¼ fold, 2 web napkin folder with embossing attachment, Extra Embossing rolls.

1—Schultz Type AX-116 Standard Household Roll Machine.

1—National Metal Edge Co. Model A metal edging machine.

1—40" Hudson-Sharp #10TW High Speed rotary type wax paper interfolder.

8—Potdevin Bag machines with two color printing units. 1—Type 293, size 9693-303, flat and square bags. 4—Type 212 Size 9112-301, satchel bottom and flat bags, 3—Type 91 F&S Size 1, Flat and square bags.

1—32" 3-color Aniline Printing Press for tailprinter on a Bag Machine.

1—64" Dillon Duplex Rotary Sheet cutter. With slitting attachment and 24 roll Double Deck backstands.

1—82" Hamblet Single Rotary Sheet Cutter with Slitting Attachment, Erie Automatic Layboy and 24-roll Double-deck Backstands.

1—Economy Upstroke Baler. Style No. 160F4. Makes 60" Bale. Standard A. C. powered.

1—45" German Dornbusch Embossing machine with two sets of embossing rolls.

1—80" Potdevin Waxing Machine. Model 79.

1—57" Norwood 14 roll stack of Glassine Super Calenders. Complete with 60" wide dampener.

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2—12" x 12" Beloit Triplex Plunger Stock Pumps.

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M-25

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One 45" Seybold with motor

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One Perkins rag cutter.

Two practically new Taylor Stiles Giant #36.

2—#2 Bird Screens.

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2—Monarch Jordans.

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One revolving reel, new type, 45" dia. roll.

Farrel reducer, two motor G.E. drive.

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J-8

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1—Manhasset style AP424, four color, 24" special ANILINE PRESS. Can be installed with Bag Machines above. New 1947.

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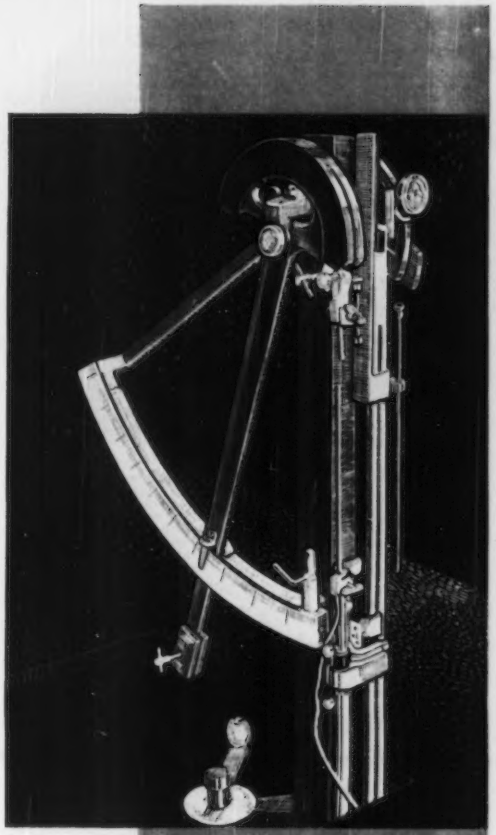

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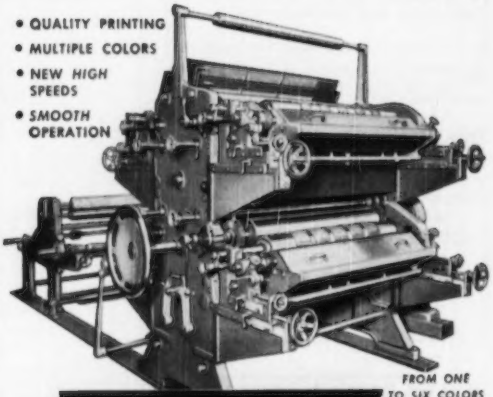

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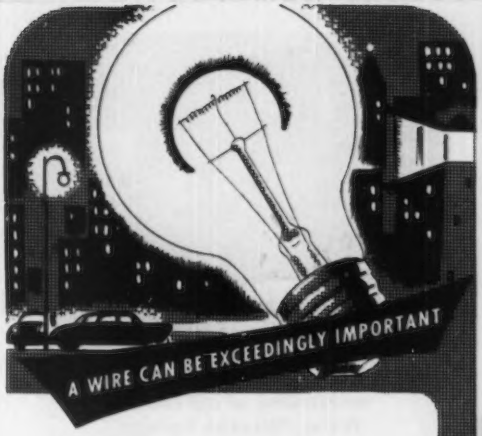

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Wyandotte Chemicals Corp.

DEWAXING CHEMICALS
American Cyanamid Company Industrial Chemicals Division
General Dyestuff Corp.
Nopco Chemical Co.

DIFFERENTIAL SCALES
Thwing-Albert Instrument Co.

DIGESTERS
Babcock & Wilcox Co.
Chicago Bridge & Iron Co.
Lukenweld
Pusey & Jones Corp.

DIGESTERS (Continuous)
Paper & Industrial Appliances

DIRTEC
Bird Machine Co.

DISPERSING AGENTS
Calgon, Inc.
General Dyestuff Corp.
Monsanto Chemical Company
National Aluminate Corp.
Nopco Chemical Co.
Rohm & Haas Co.

DOCTORS
Bird Machine Company
Black Clawson Company
Downingtown Mfg. Co.
Lobdell Co.
Lodding Engineering Corp.
The Moore & White Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.

DOCTOR BLADES
Bird Machine Company
Lodding Engrg. Corp
The Moore & White Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.

DRIERS
Black Clawson Company
Downingtown Mfg. Co.
Gibbs-Brower Company, Inc.
Hardinge Company, Inc.
Lukenweld
The Moore & White Co.
Murray Mfg. Co., D. J.
J. J. Ross Company
Red-Ray Mfg. Co., Inc.
Ross Paper Machy. Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Valley Iron Works Co.
The Youngstown Welding & Engrg. Co.
Allis-Chalmers Mfg. Co.
Appleton Machine Co.
Bird Machine Co.
Black Clawson Company
Dilts Machine Works
Downingtown Mfg. Co.
Fairbanks, Morse & Co.
Farrel-Birmingham Co.
General Electric Company
Gibbs-Brower Company, Inc.
Rodney Hunt Machine Co.
Link Belt Company
Moore & White Co.
Murray, D. J., Mfg. Co.
Pusey & Jones Corp.
J. J. Ross Company
Ross Paper Machy. Corp.
The Sandy Hill Iron & Brass Works
Shartle Bros. Mch. Co.
Valley Iron Works Co.
Westinghouse Electric Corp.

DRYER DRAINAGE
Stickle Steam Specialties Co.

DRYER ROLL PYROMETER
Thwing-Albert Instrument Co.

DUSTERS
Appleton Machine Co.
Downingtown Mfg. Co.
Frank W. Egan & Co.
M. W. Jenkins Sons, Inc.
E. D. Jones & Son Co.
Moore & White Co.
D. J. Murray Mfg. Co.
John Waldron Corp.

DUSTING BRUSHES
M. W. Jenkins Sons, Inc.

DYESTUFFS
American Cyanamid Company, Calco Chemical Div.
Bunge Pulp & Paper Co.
Ciba Company
E. I. du Pont de Nemours & Co., Inc.
Geigy Co., The
General Dyestuffs Corp.
National Aniline Division, Allied Chemical & Dye Corp.

ELECTRIC HYGROMETER
Thwing-Albert Instrument Co.

EMBOSSING MACHINES
Dilts Machine Works
John Waldron Corp.

EMBOSSING ROLLS
The Appleton Machine Co.
Frank W. Egan & Co.
Gibbs-Brower Company, Inc.
Northern Engraving & Mch. Co.
B. F. Perkins & Son, Inc.
John Waldron Corp.

EMULSIFIERS
General Dyestuff Corp.
Nopco Chemical Co.
Rohm & Haas Co.
Wyandotte Chemicals Corp.

ENZYMES
Rohm & Haas Co.
Pillsbury Mills, Inc.
Vanderbilt Co., R. T.

EVAPORATORS
Davis Engrg. Corp.
Goslin-Birmingham Mfg. Co., Inc.
Murray, D. J., Mfg. Co.
Swenson Evaporator Co., Div. of Whiting Corp.

EXPANDERS
Mount Hope Machinery Co.

FANS
General Electric Co.
B. F. Perkins & Son, Inc.
Ross Engineering Co., J. O.
Stephens-Adamson Mfg. Co.

FEEDERS
Hardinge Company, Inc.
Merrick Scale Mfg. Co.
Leeds & Northrup

FELTS
Appleton Woolen Mills
Asten-Hill Mfg. Co.
Draper Bros. Corp.
Huyck & Son, F. C.
Lockport Felt Co.
Mt. Vernon-Woodbury Mills, Inc.
Morey Paper Mill Supply Co.
Orr Felt & Blanket Co.
Shuler & Benninghofen
Waterbury Felt Co.
Waterbury, H., & Sons Co.
Williams-Gray Co.

WHERE TO BUY

FELT CLEANERS
Calgon, Inc.
Cowles Chemical Co.
General Dyestuff Corp.
Nopco Chemical Co.

FELT CONDITIONERS
Bird Machine Co.
The Sandy Hill Iron & Brass Works

FELT GUIDES
Black Clawson Company
Frank W. Egan & Co.
Moore & White Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Waldron Corp., John

FILLERS
American Cyanamid Company, Industrial Chemicals Division
A. M. Meincke & Son, Inc.
Vanderbilt Co., R. T.

FILTERS
Bird Machine Company
Hardinge Company, Inc.
J. M. Huber Corp.
Hungerford & Terry, Inc.
Johnson Corp.
Moore & White Co.
J. O. Ross Engrg. Corp.
The Sandy Hill Iron & Brass Works
Walworth Company

FITTINGS
Crane Company
Shartle Bros. Mch. Co.
Walworth Company

FLEXIBLE COUPLINGS
John Waldron Corp.

FLOORING, GRATING AND TREADS
The Goodyear Tire & Rubber Company
Norton Co.

FLOW BOXES, STAINLESS-CLAD
Lukens Steel Co.
The Sandy Hill Iron & Brass Works

FORK LIFT TRUCKS
Towmotor Corp.

FORMATION
Thwing-Albert Instrument Co.

FORMING MACHINES
Black Clawson Company
Downingtown Mfg. Co.
The Moore & White Co.
Noble & Wood Machine Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.

FREENESS TESTERS
Testing Machines, Inc.

GASKETS
The Goodyear Tire & Rubber Company

GEARS
Black Clawson Company
De Laval Steam Turbine Co.
Downingtown Mfg. Co.
Frank W. Egan & Co.
Farrel-Birmingham Co.
E. D. Jones & Sons Co.
Link Belt Company
Moore & White Co.
D. J. Murray Mfg. Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Smith & Winchester Mfg. Co.
Valley Iron Works Co.
Westinghouse Electric Corp.

GRINDERS
Bridgeport Safety Emery Wheel Company
Carthage Machine Co.
Farrel-Birmingham Co.
Gibbs-Brower Company, Inc.
Lobdell Co.
Norton Company
Samuel C. Rogers and Company
The Sandy Hill Iron & Brass Works

GRINDING WHEELS
Norton Company

GUIDES, WEB
The Moore & White Co.
Mount Hope Machinery Co.
Bound Brook Engrg. Co.
John Waldron Corp.

GUMMING MACHINES
Dilts Machine Works
The Sandy Hill Iron & Brass Works

GUMS
National Starch Products, Inc.
Stein-Hall Co., Inc.

HEADS
Babcock & Wilcox Co.
Lukens Steel Company

HEAT EXCHANGERS AND RECOVERY SYSTEMS
Davis Engrg. Corp.
Stickle Steam Specialties Co.
Westinghouse Electric Corp.

HEATING, VENTILATING & AIR CONDITIONING
The Appleton Machine Co.
Davis Engrg. Corp.
E. D. Jones & Sons Co.
General Electric Co.
Leeds & Northrup
Minneapolis-Honeywell Regulator Co.
D. J. Murray Mfg. Co.
Red-Ray Mfg. Co., Inc.
Ross Engineering Corp., J. O.
Stickle Steam Specialties Co.
Valley Iron Works Co.
Westinghouse Electric Corp.

HOSE (Air, Water, Suction, etc.)
The Goodyear Tire & Rubber Company

HUMECTANTS
Aktivin Division, Heyden Chemical Corp.
Nopco Chemical Co.

IMPREGNANTS
American Cyanamid Company Industrial Chemicals Division
American Anode Div.

INDENTING MACHINES
Dilts Machine Works

INDUSTRIAL TRACTORS
Towmotor Corp.

INKOMETER
Thwing-Albert Instrument Co.

INSTRUMENTS, TESTING AND MEASURING
Bauer Brothers Co.
Bunge Pulp & Paper Co.
N. P. Bowsher
The Bristol Company
The Brown Instrument Co.
General Electric Company
W. & L. E. Gurley
Leeds & Northrup Company
National Technical Laboratories
B. F. Perkins & Son
Photovolt Corp.
Taylor Instrument Cos.
Testing Machines, Inc.
Thwing-Albert Instrument Co.

JOINTS
Johnson Corp.
Perfecting Service Corp.
Shartle Bros. Mch. Co.

JORDAN FILLINGS
Appleton Machine Co.
Bahr Brothers Mfg. Co.
E. D. Jones & Sons Co.
Shartle Bros. Mch. Co.
Smith & Winchester Mfg. Co.
Valley Iron Works Co.

KNIVES
Black Clawson Company
Dilts Machine Works, Inc.
Hamblet Machine Co.
Heppenstall Company
E. D. Jones & Sons Co.
The Moore & White Co.
Taylor Stiles & Co.
Valley Iron Works Co.

KNOT BORING MACHINES
DeZurik Shower Company

LABORATORY CORRUGATOR
Thwing-Albert Instrument Co.

LABORATORY EQUIPMENT
Appleton Machine Co.
Bauer Brothers Co.
The Biggs Boiler Works Co.
Bird Machine Company
Dilts Machine Works
W. & L. E. Gurley
E. D. Jones & Sons Co.
Leeds & Northrup Company
National Technical Laboratories

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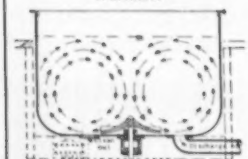
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WHERE TO BUY

Taylor Instrument Companies
Testing Machines, Inc.
Valley Iron Works Co.
John Waldron Corp.

LAMINATING COMPOUND
National Wax Company

LAMINATING MACHINES
Dilts Machine Works
John Waldron Corp.

LAY BOYS
Dilts Machine Works
Gibbs-Brower Company, Inc.
Hamblet Machine Co.
Moore & White Co.

LUBRICANTS
Sinclair Refining Co.
Socony-Vacuum Oil Co.
Sun Oil Company
The Texas Company
Tide Water Associated Oil Co.

MAGAZINE REELS
Dilts Machine Works (Kohler Systems)

MATERIALS HANDLING
Cleveland Crane & Engrg. Co.
Dilts Machine Works
Frank G. Hough Co.
Shartle Bros. Mch. Co.
Stephens-Adamson Mfg. Co.
The Wellman Engrg. Co.

MICROMETERS & CALIPERS
Farrel-Birmingham Co.
Lobdell Co.
Testing Machines, Inc.

MICRO-CRYSTALLINE WAXES
Bunge Pulp & Paper Co.
National Wax Company

MOISTURE CONTENT CONTROL
Stickle Steam Specialties Co.

MOTORS AND GENERATORS
Allis-Chalmers Mfg. Co.
Fairbanks, Morse & Co.
General Electric Company
Reliance Electric & Engrg. Co.

NICKEL AND NICKEL ALLOYS
The International Nickel Co.

NOZZLES
Link Belt Company

PACKING BOXES
Johnson Corporation
The Moore & White Co.
Perfecting Service Corp.
Shartle Brothers Machine Co.

PAPER MACHINES
Bagley & Sewall Co.
Black Clawson Company
Downingtown Mfg. Co.
Gibbs-Brower Company, Inc.
Thomas W. Hall Co.
Lukenweld
Moore & White Co.
Pusey & Jones Corp.
I. J. Ross Company
Ross Paper Machy. Corp.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Smith & Winchester Mfg. Co.

PAPER MACHINE SLICES
Black Clawson Company
E. D. Jones & Sons Co.
The Moore & White Co.
The Sandy Hill Iron & Brass Works
Valley Iron Works Co.

PAPER TUBE MACHINERY
Dietz Machine Works
Gibbs-Brower Company, Inc.
Thomas W. Hall Co.
Hudson Sharp Machine Co.
Langston Co., Samuel M.

PARAFFINE WAXES
National Wax Company

PARAFFIN WAX EMULSIONS
Nopco Chemical Co.

PASTING MACHINES
Black Clawson Company
Dilts Machine Wks.
Frank W. Egan & Co.
Gibbs-Brower Company, Inc.
Murray, D. J., Mfg. Co.
Moore & White Co.
Potdevin Machine Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Waldron Corp., John

PERFORATED METAL
Allis-Chalmers Mfg. Co.

PETROLATUMS
National Wax Company

pH METERS
Thwing-Albert Instrument Co.

PIGMENTS
Perro Enamel Corp.

PIPE
American Cast Iron Pipe Co.
Armco Drainage & Metal Products, Inc.
Babcock & Wilcox Co.
Crane Company
Michigan Pipe Co.
Michigan Steel Casting Co.
National Tube Co.
Walworth Company
Youngstown Welding & Engrg. Co.

PIPE FITTINGS
Armco Drainage & Metal Products Co.
Crane Company
Michigan Steel Casting Co.
Walworth Co.

PIPE MARKERS
W. H. Brady Co.

PITCH CONTROL
American Cyanamid Company Industrial Chemicals Division
General Dyestuff Corp.
Monsanto Chemical Company
National Aluminate Corp.
Nopco Chemical Co.
Rohm & Haas Co.

PLASTICIZERS
American Cyanamid Company Industrial Chemicals Division
Aktivin Division, Heyden Chemical Corp.
Nopco Chemical Co.

PLATERS
Gibbs-Brower Company, Inc.
Perkins & Son, Inc., B. F.

PLATES
Armco Steel Corp.
Babcock & Wilcox Co.
The Biggs Boiler Works Co.
J. O. Ross Engrg. Corp.
Lukenweld Division
Lukens Steel Company
Timken Roller Bearing Co.

PLUGS
The Appleton Machine Co.
Black Clawson Company
E. D. Jones & Sons Co.
Shartle Brothers Machine Co.

PRECISION SAMPLE CUTTER
Testing Machines, Inc.
Thwing-Albert Instrument Co.

PRESERVATIVES
E. I. du Pont de Nemours & Co.
General Dyestuff Corp.

PRESSURE VESSELS STEEL AND ALLOY
Babcock & Wilcox Co.
The Biggs Boiler Works Co.

PRESSURE VESSELS
Chicago Bridge & Iron Co.

PRESSES
Black Clawson Company
Dietz Machine Works
Farrel-Birmingham Co.
Gibbs-Brower Company, Inc.
Thomas W. Hall Co.
Hudson-Sharp Machine Co.
The Moore & White Co.
Paper Converting Machine Co. Inc.
Potdevin Machine Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Valley Iron Works Co.
Waldron Corp., John
H. G. Weber & Co., Inc.
Williams Apparatus Co.

PULP CLASSIFIER
The Bauer Bros. Co.
Thwing-Albert Instrument Co.

PULP CLEANERS
Nichols Engrg. & Research Corp.

PULP STOCK VALVES
Crane Company
Record Fdy. & Mach. Co.
Shartle Brothers Machine Co.

PULPERS
American Paper Machy. & Engrg. Works, Inc.
Bauer Brothers Co.
Dilts Machine Works
E. D. Jones & Sons Co.
Shartle Brothers Machine Co.

PULPS
Brown Company
Bunge Pulp & Paper Co.
Gotte-man & Co., Inc.
Elof Hansson, Inc.
Lyddon & Co. (America), Inc.
Parsons & Whittemore, Inc.

Perkins-Goodwin Co.
Price & Pierce, Ltd.
Pulp and Paper Trading Co.
Pulp Sales Corp.
Restigouche Co., Ltd.

PULPSTONES

Norton Company

PUMPS

American Paper Machy. & Engrg. Works, Inc.
Allis-Chalmers Mfg. Co.
Black Clawson Company
DeLaval Steam Turbine Co.
Dorr Company
Downingtown Mfg. Co.
Fairbanks, Morse & Co.
Gibbs-Brower Company, Inc.
Johnson Corp.
Moore & White Co.
Nash Engineering Co.
Roots Connersville Blower Corp.
J. J. Ross Company
Ross Paper Machy. Corp.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Smith & Winchester Mfg. Co.
Warren Steam Pump Company

RADIANT BURNERS

Red-Ray Mfg. Co., Inc.

RAG COOKING PROCESSES

The Kinsley Chemical Company
General Dyestuff Corp.
Rohm & Haas Co.

RAG CUTTERS

Gibbs-Brower Company, Inc.
B. F. Perkins & Son, Inc.
Taylor-Stiles & Co.

RECAUSTICIZING PLANTS

The Dorr Company

RECOVERY SYSTEMS

Babcock & Wilcox Co.
Bulkley, Dunton Pulp Co., Inc.
Chicago Bridge & Iron Co.
Rodney Hunt Machine Co.
Moore & White Co.
D. J. Murray Mfg. Co.
Pusey & Jones Corp.
Ross Engineering Corp., J. O.
Valley Iron Works Co.

REELS

The Appleton Machine Co.
Black Clawson Company
Dilts Machine Works (Kohler Systems)
Downingtown Mfg. Co.
Hudson Sharp Machine Co.
Moore & White Co.
Paper Converting Mch. Co.
Rodney Hunt Machine Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
The Smith & Winchester Mfg. Co.

REFINERS

Appleton Machine Co.
Bahr Brothers Mfg. Co.
Bauer Brothers Co.
Dilts Machine Works
Gibbs-Brower Company, Inc.
Anton J. Haug
E. D. Jones & Sons Co.
Morden Machines Co.
Murray, D. J., Mfg. Co.
Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Sutherland Refiner Corp.
Valley Iron Works

REGULATORS

American Paper Machy. & Engrg. Works, Inc.
Allis-Chalmers Mfg. Co.
Armstrong Machine Works
Bird Machine Company
The Bristol Company
DeZurik Shower Company
General Electric Co.
Johnson Corp.
Leeds & Northrup Company
Minneapolis-Honeywell Regulator Co.
National Technical Laboratories
Shartle Brothers Machine Co.
Stickle Steam Specialties Co.
Taylor Instrument Companies
Wallace & Tiernan

RESINS

American Cyanamid Company, Plastics & Resins Division
The Dow Chemical Company
The Goodyear Tire & Rubber Company
Hercules Powder Co.
Monsanto Chemical Company
Nopco Chemical Co.
Rohm & Haas Co., Resinous Products Div.

ROLLS

Appleton Machine Co.
Black Clawson Company
Dilts Machine Works
Downingtown Mfg. Co.
Frank W. Egan & Co.
Farrel-Birmingham Co.
Gibbs-Brower Company, Inc.
Lobdell Co.
The Moore & White Co.
D. J. Murray Mfg. Co.
Perkins, B. F., & Sons Co.
Pusey & Jones Corp.
J. J. Ross Company
Ross Paper Machy. Co.
Rodney Hunt Machine Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Smith & Winchester Mfg. Co.
U. S. Rubber Co.
Valley Iron Works Co.
Waldron Corp., John
The Youngstown Welding & Engrg. Co.

ROLL COVERS

The Cincinnati Rubber Mfg. Co.
The Goodyear Tire & Rubber Company
Stowe-Woodward, Inc.

ROLL HANDLING EQUIPMENT

Dilts Machine Works (Kohler Systems)

ROLL STANDS

Cameron Machine Co.
Dilts Machine Works (Kohler Systems)
Frank W. Egan & Co.
Moore & White Co.
Potdevin Machine Co.
John Waldron Corp.
H G. Weber & Co., Inc.
The Sandy Hill Iron & Brass Works

ROPE CARRIERS

Black Clawson Co.
The Moore & White Co.
The Sandy Hill Iron & Brass Works

ROTARY STEAM JOINTS

Johnson Corp.
The Moore & White Co.
Perfecting Service Corp.
Shartle Bros. Mch. Co.

RUBBER PRODUCTS

The Goodyear Tire & Rubber Company

SATURANTS

American Anode Div.

SATURATING MACHINES

Dilts Machine Works
Frank W. Egan & Co.
Gibbs-Brower Company, Inc.
Moore & White Co.
Noble & Wood Machine Co.
Potdevin Machine Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Waldron Corp., John
Weber, Herman G.

SAVEALLS

Bird Machine Company
Chicago Bridge & Iron Co.
Green Bay Fdy. & Mch. Wks.
Hardinge Company

SCALES

Fairbanks, Morse & Co.
Merrick Scale Mfg. Co.
Testing Machines, Inc.

SCREEN PLATES

Bird Machine Company
Fitchburg Screen Plate Co.
Magnus Metal Corp.
Morey Paper Mill Supply Co.
Testing Machines, Inc.

SCREENS

Allis-Chalmers Mfg. Co.
Appleton Wire Works
Appleton Machine Company
Bird Machine Company
Carthage Machine Co.
Dilts Machine Works, Inc
Downingtown Mfg. Co.
Gibbs-Brower Company, Inc.
E. D. Jones & Sons Co.
Link Belt Company
Moore & White Co.
D. J. Murray Mfg. Co.
J. J. Ross Company
Ross Paper Machy. Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Stephens-Adamson Mfg. Co.
Valley Iron Works Co.

SHEET MACHINES

Gibbs-Brower Company, Inc.
Thomas W. Hall Co.
Valley Iron Works Co.

SHOWER PIPES

Bird Machine Company
DeZurik Shower Company
Downingtown Mfg. Co.
Moore & White Co.
Sandusky Fdy. & Mch. Co.
Shartle Brothers Machine Co.
Smith & Winchester Mfg. Co.

SHREDDERS

Bauer Brothers Co.
Carthage Machine Co.
Gibbs-Brower Company, Inc.

SIZING

American Cyanamid Company, Industrial Chemicals Division
The Dow Chemical Company
du Pont, E. I., de Nemours & Co.
Hercules Powder Co.
The Hubinger Co.
Monsanto Chemical Company
National Aluminate Corp.
Nopco Chemical Co.
Stein-Hall Co., Inc.

SIZING TESTER

W. & L. E. Gurley
Testing Machines, Inc.
Thwing-Albert Instrument Co.

SLIME CONTROL

The Dow Chemical Company
E. I. du Pont de Nemours & Co.
General Dyestuff Corp.
Monsanto Chemical Co.
National Aluminate Corp.
Rohm & Haas Co.
Vanderbilt Co., R. T.

SLITTERS

Black Clawson Company
Cameron Machine Co.
Carthage Machine Co.
Dietz Machine Works
Dilts Machine Works
Downingtown Mfg. Co.
Frank W. Egan & Co.
Gibbs-Brower Company, Inc.
Thomas W. Hall Co., Inc.
Hamblet Machine Co.
Hudson Sharp Machine Co.
Langston Co., Samuel M.
Moore & White Co.
D. J. Murray Mfg. Co.
Potdevin Machine Co.
J. J. Ross Company
Ross Paper Machy. Co.
The Sandy Hill Iron & Brass Works
Smith & Winchester Mfg. Co.
Suburban Machine Co.
Valley Iron Works Co.
Waldron Corp., John

SMOKE STACKS

The Biggs Boiler Works Co.
Chicago Bridge & Iron Co.

SOFTNESS-STIFFNESS TESTER

W. & L. E. Gurley
Testing Machines, Inc.
Thwing-Albert Instrument Co.

SOLUBLE OILS

American Cyanamid Company, Industrial Chemicals Division
General Dyestuff Corp.
Nopco Chemical Co.

SPECIAL MACHINERY

Dilts Machine Works
The Sandy Hill Iron & Brass Works
John Waldron Corp.

SPLICING TISSUE

Bunge Pulp & Paper Co.
Williams-Gray Co.

STAINLESS STEEL

American Cast Iron Pipe Co.
Armco Steel Corp.
Michigan Steel Casting Co.
U. S. Steel Corp.

STARCH

American Cyanamid Company, Industrial Chemicals Division
A. M. Meincke & Son, Inc.
Clinton Foods, Inc.
The Hubinger Co.
National Starch Products Inc.
Stein-Hall Co., Inc.

STEAM JOINTS

The Moore & White Co.
Shartle Bros. Mch. Co.

STEAM SPECIALTIES

Babcock & Wilcox Co.
Combustion Engrg. Co., Inc.
Davis Engrg. Corp.
Johnson Corp.
Perfecting Service Corp.
Stickle Steam Specialties Co.

STEEL

Armco Steel Corp.
Carnegie Illinois Steel Co.
Lukens Steel Company
D. J. Murray Mfg. Co.
The Sandy Hill Iron & Brass Works
U. S. Steel Corp.

STEEL, CLAD

Babcock & Wilcox Co.
Lukens Steel Company

STEEL TANKS

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Chicago Bridge & Iron Co.
The Sandy Hill Iron & Brass Works

STRETCH TESTER

Thwing-Albert Instrument Co.

STUFF CHESTS

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E. D. Jones & Sons Co.
Moore & White Co.
Shartle Brothers Machine Co.
Valley Iron Works Co.

SUCTION BOXES

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Downingtown Mfg. Co.
E. D. Jones & Sons Co.
Moore & White Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.

SULPHUR

American Cyanamid Company, Industrial Chemicals Division
Texas Gulf Sulphur Co.
Witco Chemical Company

SULPHUR BURNERS

Valley Iron Works Co.

SULPHUR DIOXIDE

American Cyanamid Company, Calco Chemical Div.
Virginia Smelting Co.

SUPERCALENDERS

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B. F. Perkins & Son, Inc.

SYNTHETIC LATICES

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American Anode Div.
The Goodyear Tire & Rubber Company
Nopco Chemical Co.

TACHOMETERS

The Brown Instrument Co.

TAKE OFF UNITS

Dilts Machine Works (Kohler Systems)

TALC

American Cyanamid Company, Industrial Chemicals Division
Vanderbilt Co., R. T.

TANKS

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Chicago Bridge & Iron Co.
Kalamazoo Tank & Silo Co.
The Noble & Wood Machine Co.
B. F. Perkins & Sons, Inc.
J. O. Ross Engrg. Corp.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Waldron Corp., John

TEARING TESTERS

Thwing-Albert Instrument Co.
Testing Machines, Inc.

TENSILE TESTERS

Bunge Pulp & Paper Co.
Thwing-Albert Instrument Co.
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Testing Machines, Inc.
Nopco Chemical Co.

THICKENERS, DECKERS AND SAVEALLS
The Appleton Machine Co.
Bird Machine Company
Bulkley, Dunton Pulp Co., Inc.
Carthage Machine Co.
Chicago Bridge & Iron Co.
Dilts Machine Works
Dorr Co.
Downingtown Mfg. Co.
Hardinge Co., Inc.
Moore & White Co.
D. J. Murray Mfg. Co.
Oliver United Filters, Inc.
J. J. Ross Company
Ross Paper Machy. Corp.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Valley Iron Works Co.

TITANIUM
American Cyanamid Co., Calco Chemical Div.
E. I. du Pont de Nemours & Co.
Titanium Pigment Co.
R. T. Vanderbilt Co.

TOOLS
Walworth Company

TRACTORS AND TRUCKS
Towmotor Corp.

TRANSMISSIONS
Link Belt Company
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Crane Co.
Johnson Corporation
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Stickle Steam Specialties Co.

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Babcock & Wilcox Co.
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TUBING MACHINES
Dilts Machine Works

TUBING, MECHANICAL
National Tube Co.

TUBS
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Shartle Brothers Machine Co.
Valley Iron Works Co.

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Hunt, Rodney, Mach. Co.

UNWINDERS
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John Waldron Corp.

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Ross Paper Machy. Corp.
Shartle Brothers Machine Co.

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Dilts Machine Works
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Magnus Metal Corp.
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Record Fdy. & Mch. Co.
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Shartle Brothers Machine Co.
Stickle Steam Specialties Co.
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Trimbey Mach. Wks.
Valley Iron Works Co.
Walworth Company

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Moore & White Co.
Oliver United Filters
The Sandy Hill Iron & Brass Works
Rodney Hunt Machine Co.
Shartle Brothers Machine Co.
Valley Iron Works Co.

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The Dorr Company
General Dyestuff Corp.
Hungerford & Terry, Inc.
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The Sandy Hill Iron & Brass Works

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American Cyanamid Company Industrial Chemicals Division
Rohm & Haas Co., Resinous Products Div.

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Green Bay Fdy. & Mch. Wks.

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WATER VAPOR CUPS
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Potdevin Machine Co.
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Weber, Herman G.

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John Waldron Corp.

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Walworth Company

WET MACHINES
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Pusey & Jones Company
J. J. Ross Company
Ross Paper Machy. Corp.
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Shartle Brothers Machine Co.
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Kohler Systems
Langston Co., Samuel M.
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Paper Converting Mch. Co.
Potdevin Machine Co.
Pusey & Jones Corp.
J. J. Ross Company
Ross Paper Machy. Corp.
The Sandy Hill Iron & Brass Works
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Suburban Machine Co.
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WINDING ROLL CHANGERS
Dilts Machine Works (Kohler Systems)

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Carthage Machine Co.

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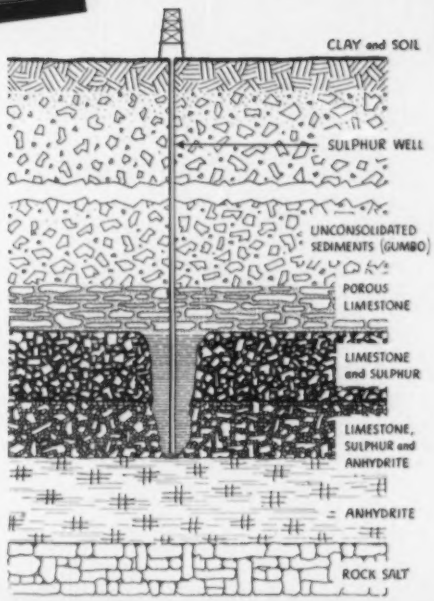

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